Power, Gender, and Mobility

Aspects of Indo-European Society

Edited by
Riccardo Ginevra
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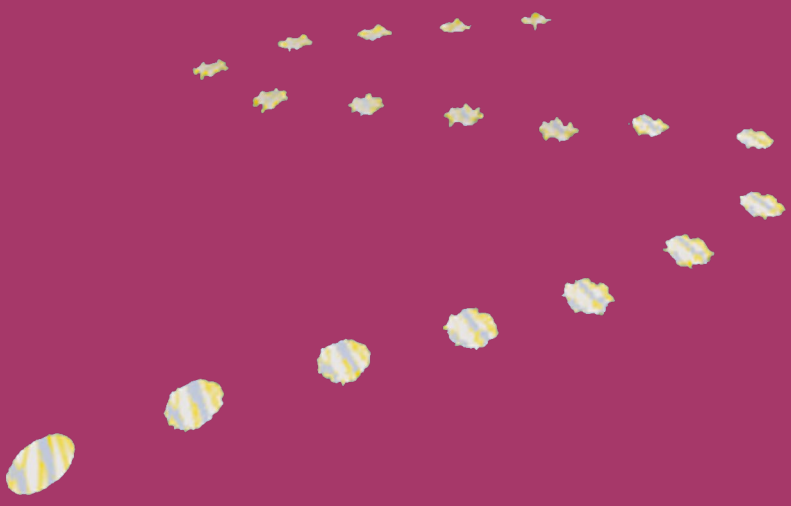

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RICCARDO GINEVRA
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Preface

When linguists and philologists first began systematically analyzing the striking parallels among the Indo-European (IE) languages and reconstructing the features of their prehistoric ancestor, Proto-Indo-European (PIE), they soon realized they were uncovering more than just phonetic systems, words, and phrases. They were also identifying the underlying concepts those terms evoked in the minds of the speakers. Based on the evidence of the IE daughter languages, scholars were able to reconstruct, for example, the word for the domesticated one-toed ungulate, **h₁éḱu̯os*, or the term for the circular object that rotates around an axle, **kʷékʷlos*. But the words for the 'horse' and the 'wheel' cannot have been part of the PIE vocabulary by accident: they must have also been a part of the real world that surrounded the speakers of PIE. In other words, the reconstruction of the prehistoric language entails the reconstruction of its speakers' prehistoric reality, a research interest that scholars of Indo-European studies share with specialists in archaeology and anthropology.

Animals and wooden objects are not the only elements that were recovered on the basis of comparative evidence. The rich inherited vocabulary of the IE daughter languages also allowed for the reconstruction of words for social institutions like 'youthful war band, sodality' (**korios*) and 'bride price' (**h₂u̯edh₁-mn(-o)-*), of the names of deities belonging to a polytheistic pantheon (e.g., **di̯ḗu̯s ph₂tḗr* 'Father Sky' and **h₂éu̯sōs* 'Dawn'), of elaborate kinship terminology such as 'daughter-in-law' (**snusós*) and 'husband's brother's wife' (**h₁i̯enh₂tḗr*), and even of verbal roots that refer to such intricate interhuman actions as 'to change sides, social class, or ownership' (**h₃erbʰ-* or **h₁erbʰ-*) or 'to demand atonement, punish' (**kʷei̯-*).

The desire to explore these cultural concepts and social institutions alongside linguistic structures led Indo-Europeanists to foster a productive interdisciplinary dialogue with experts in archaeology, anthropology, the history of religions, and – especially in the last decade – 'ancient DNA'. A number of theorized concepts which had been reconstructed solely on the basis of linguistic data, such as the practice of patrilocal marriages and female exogamy, have now been confirmed or further developed thanks to cross-disciplinary research; and linguistic

reasoning has, in turn, quite frequently been able to support or refute hypotheses made by archaeologists, anthropologists, and historians of religion. It is precisely at this intersection of diverse but complementary approaches to the investigation of prehistoric culture and society that the present volume is situated. It seeks to explore the dynamics of power, gender, and mobility, three concepts that are essential for a profound understanding of the historically attested IE-speaking societies and of the prehistoric society reflected by PIE. In a cross-disciplinary fashion, the book combines linguistic, anthropological, and archaeological perspectives in order to offer a comprehensive analysis of topics ranging from gender roles and female onomastics to power structures and the role of poets as social brokers, from Indo-European legal language and initiation rites to matrimonial practices and age-based social hierarchies. It provides fresh interpretations and new approaches to known material as well as novel explorations and unprecedented analyses of new data.

The first section of the book, *Gender, Power, and Language*, deals with gender as both a grammatical and a social category, its interplay with language, and with the role that power relations have in shaping them both. Ulla Remmer's contribution "How (not) to name a woman in Indo-European: The evidence of female onomastics for the status of women in Indo-European societies" discusses naming patterns for women and girls in Indo-Iranian and other Indo-European traditions as evidence for their lower social status compared to men, illustrated by the fact that a woman's name was often simply a modification of her father's or husband's name. Tackling gender as a grammatical category, Stefan Höfler's chapter "Gender in Indo-European: A synopsis" explores the development of the three-gender system and the origin of the feminine gender in IE, and investigates the role of gender in PIE grammar. In her study "Pan, Pūṣan, and their matrimonial functions", Jil Schermutzki focuses on the long-established etymological and thematic connection between the Greek god Pan and the Indic god Pūṣan, discussing their shared associations with marriage, matrimony, and fertility, which seem to provide further support to Pan and Pūṣan's common descent from an inherited deity. In "The Charioteer Athena as goddess of warriors: Constellations and their role in the prehistory of Greek religion", Michael Janda departs from a comparison of Athena's role in the *Iliad* with the goddess Aṣi's in the Avestan tradition, identifying the latter with the constellation Auriga and investigating the origin of Athena in Indo-European starlore as a female charioteer who travels across the sky. Finally, Michael Weiss's chapter "Quaecumque a Benveniste dicta essent, commenticia esse" is a careful critique of Émile Benveniste's 1969 book, *Le vocabulaire des institutions indo-européennes*, probably one of the most cited

works of Indo-European linguistics ever published, with special focus on three etymological topics closely linked to either gender or power: the two variants of the Indo-European 'male, male animal' word (**u̯r̥s-en-* vs. **(h₁)r̥s-en-*), the institutions of the Latin *cēnsor* and *cēnsus*, and the concept of Latin *auctoritās*.

The second section, *Power, Mobility, and Conflict*, is devoted to the power dynamics that underlie fundamental social institutions, including those linked with spatial and social mobility (such as guest-friendships and patron–client relations), as well as to the conflicts that may arise within them (and the resolution thereof). It explores how these dynamics shape and are shaped by social hierarchies and mobility patterns. Peter Jackson Rova's Schleicher-inspired study "The wolf, the lamb, and the dog: An Aesopian guide to Indo-European sociology" departs from two Ancient Greek fables and takes them as useful tools to develop a model of Indo-European society that is based on four dimensions, distributed along a horizontal axis between domesticity and savagery, and a vertical one between dominance and submission. In "On the prehistory of legal language and procedure: Repairing a misdeed in Proto-Indo-European and in Core Indo-European", José Luis García Ramón focuses on the two possible conceptualizations of the reparation of a misdeed attested in the legal lexicon and phraseology of various ancient IE traditions: the misdeed as something that must be 'repaired, made good' (likely already PIE), and the misdeed as something that the offender must 'pay, atone' for (probably later, Core IE). Riccardo Ginevra's chapter "Indo-European patrons vs. clients, and the role of poets as social brokers: 'Leaders' vs. 'friends', and intelligent speakers in the mythologies of Scandinavia, India, and Rome" is devoted to the IE social institution of patron–client relationships, whose power dynamics are investigated through a comparative analysis of Norse, Indic, and Roman myths about 'intelligent speakers' (i.e., poets) acting as social brokers or mediators between patrons and their clients. To close the section, Rune Iversen challenges the standard picture of pre-IE Europe as characterized by peaceful societies based on matrilineality and sex egalitarianism in his chapter "The violent Indo-Europeans: Some general thoughts on the martial influence of the Corded Ware on Neolithic societies", and argues that the violent aspects of early Indo-European societies were already well-established elements in Neolithic Europe.

The third and final section, *Mobility, Gender, and Social Structure*, explores the ways in which mobility – whether spatial, social, or economic – intersects with gender norms and expectations, examining the resultant impacts on societal organization and hierarchies. This section also delves into the cultural and institutional mechanisms, including initiation rites, that regulate mobility and gender, shedding light on the complex interdependencies that shape the lived experienc-

es of individuals within various IE societies. Mikkel Nørtoft's chapter "An update on the Corded Ware culture: Formation and spread, social aspects, human–canid relations, and tooth and shell status items" integrates archaeolinguistic and bio-archaeological data to discuss both general social aspects of migrations from the steppe to Europe and human–canid relationships in (likely IE-speaking) Corded Ware societies, challenging, or at least supplementing, the widespread view that wolves/dogs were associated with young male warrior bands. Discussing inherited vocabulary pertaining to diverse forms of social relationships, Birgit Anette Olsen's study "In-laws and outlaws in Indo-European societies: The master of the house and his circles of interest" explores the various strategies employed by aristocratic clan leaders to establish alliances with neighbours and gradually extend their influence, including exogamous marriages, fosterage, patronage, and guest-friendship. Jan N. Bremmer's chapter "Indo-European initiation: The Greek contribution" is an investigation into how Ancient Greek texts may provide important data for the study of several features of male initiations in IE traditions, such as hairstyles and wandering, and argues for a more differentiated usage of the term *Männerbund* within IE studies. Finally, Kim McCone's contribution "(Proto-)Indo-European age-based male social hierarchies and groupings: Age-grades, sodalities, coevals, age-sets and the origins of Rome's *curiae* (including the *curia* 'senate-house')" proposes the reconstruction of lifelong associations of coevals (so-called 'age-sets') as a prominent feature of Proto-Indo-European society, sets forth the evidence for this social institution in several IE traditions, and discusses the implications of this proposal for the study of linguistic and mythological peculiarities attested in texts from various ancient IE languages.

Focusing on three essential aspects of Indo-European society, namely power, gender, and mobility – of which at least the question of gender, the relations between gender and power, and the role of the unprivileged are still insufficiently investigated – we are here trying to fill a gap in the study of the speakers of early Indo-European varieties and of their world. Extending the perspective from family structure, which was the overarching theme of the preceding volume in the series, *Kin, clan and community in Indo-European society*, to a broader scope of social phenomena, it has been our aim to reassess and elaborate on some of the vital questions raised by Benveniste 55 years ago, many of which still await a final answer.

Some of the chapters are based on papers that were originally presented at the online conference *Power, gender and mobility: Features of Indo-European society*, held on 26–27 March 2021 and organized by several members of the *Roots of Europe* research group at the University of Copenhagen, namely Adam Hyllest-

ed, Benedicte Nielsen Whitehead, Birgit Anette Olsen, Guus Kroonen, Riccardo Ginevra, Simon Poulsen, and Stefan Höfler.

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We also wish to thank our families, friends, and colleagues for their invaluable and constant support, confident that the surrounding social environment is, and always has been, a crucial factor in the activities of all human beings – today as in the past.

The editors

PART I
GENDER, POWER, AND LANGUAGE

How (not) to name a woman in Indo-European

The evidence of female onomastics for the status of women in Indo-European societies

ULLA REMMER
Vienna

In Indo-European onomastics, gender issues have seldom been in focus. Under the premise that a name is bestowed by the powerful onto the less powerful, it is worth investigating female names in opposition to male names in order to procure information on the social status of women. The onomastic data of the oldest Indo-Iranian languages, as well as further evidence from other ancient Indo-European languages, imply that the naming of girls and women was executed with less individualizing intention than the naming of boys and men. Female names are usually feminized male names and tend to express the dependence of their bearers on their social group, family, or husband, suggesting a lower social status of women in ancient Indo-European societies.

The study of names is an important source of evidence in Indo-European linguistics. Even so, the naming of women has rarely received much attention within this field of study, and although one of the founding fathers of Indo-European linguistics, Jacob Grimm, gave a public speech on female names as early as 1852 (published in Grimm 1865), the number of publications on gender-sensitive onomastics was tiny until the turn of the millennium (notable exceptions being Bechtel 1902, Boehler 1930, Zimmer 1995). This changed in 2002, when a research project was established at the university of Zurich.[1] Building on the onomastic publications and standard works of such eminent scholars as Manfred Mayrhofer and Rüdiger Schmitt, it had a considerable output of publications, including the handbook *Indogermanische Frauennamen* (Stüber, Zehnder & Remmer 2009), with a synopsis of the naming traditions of various attested Indo-European lan-

1 The research project *Die indogermanischen Frauennamen* was founded by Michael Janda and led by Karin Stüber. It was funded by the *Schweizerischer Nationalfonds* (*SNF*; 'Swiss National Science Foundation').

guages and a survey of reconstructed female names and name types in Proto-Indo-European (PIE), as well as their onomastic morphology.

Various issues in the present paper are presented in detail in Remmer (2006), Remmer (2007), and in the author's articles on Indic, Iranian, and Germanic in the mentioned handbook. Apart from a few digressions to Ancient Greek, Latin, and Germanic languages, the focus of this paper will be on the data provided by the Indo-Iranian languages and their oldest text corpora. Because of their antiquity and the amount of surviving archaic texts, this group forms one – though not the only – important pillar for the reconstruction of PIE.[2]

1 Indo-European and Indo-Iranian preliminaries

As is well known, the PIE language is not directly attested and can only be reconstructed on the basis of its daughter languages. When trying to investigate the onomastics of ancient Indo-European societies we have to rely on the data provided by the literatures and literary remnants of the attested linguistic successor cultures, which, ranging from inscriptions and short texts on administration to poetic texts of valued literature, are diverse and chronologically disparate and cannot be compared to each other easily.

The Indo-Iranian languages are divided into the Indic branch on the one hand, with Sanskrit and its more archaic variety Vedic as its earliest-attested languages, and the Iranian branch on the other hand, with Avestan and Old Persian as the oldest attested languages. These ancient Indo-Iranian languages are phonologically and morphologically still very alike. Moreover, their societies share the linguistic feature of using a variant of the term **ăr(i)ya-* for self-designation,[3] which is used also as a lexical element in human names (cf. below).

2 The equally relevant Anatolian languages, among them Hittite and Luwian, will not be considered here, since these languages differ fundamentally from the rest of Indo-European languages, including the striking lack of a feminine–masculine distinction in their grammar. Accordingly Anatolian languages have a different system of gender onomastics, as described by Zehnder (2009, 2010). According to a theory supported by many Indo-European scholars the Anatolian languages branched off from PIE earlier than all other sub-families. When referring to (P)IE excluding the evidence given by the Anatolian languages, some scholars would speak of '(Proto-)Core Indo-European' or '(Proto-)Nuclear Indo-European', others of '(Proto-)Indo-Tocharian' (thus Olander 2019). In this article the term Proto-Indo-European (PIE) will be used for a (model of) reconstruction as implied by the evidence of the mentioned languages minus Anatolian.

3 Vedic *ā́rya-* (*ā́riya-*), Younger Avestan *airiia-*, Old Persian *ariya-*, Middle Persian *ēr*,

The Old Indic Rigveda, a collection of mostly religious hymns, includes around 500 male names, but only 25–30 female ones. This is only an estimate, since in this prehistoric culture the border between names, epithets and other appellative words is not sharply drawn, making exact counting difficult. The Old Iranian Avesta, a collection of the earliest Zoroastrian religious texts, comprises around 400 male names vs. around 28 female ones, most of them attested within the religious text *Yašt* 13 in a list of the members of the first community of the Mazda-religion. This cult was established by the prominent religious founder Zoroaster, or Zaraθuštra as attested in his own language that we know as 'Avestan' today. Since both the hymns of the Indic Rigveda and the Zoroastrian texts of the Iranian Avesta were transmitted only by oral tradition for centuries, they cannot be dated precisely. Linguistic and historical estimations indicate that they were composed and compiled before or around 1000 BCE; however, the oldest textual strata of the Rigveda and the Avesta are definitely older and probably date from approximately 1200 BCE.

The second ancient Iranian language, Old Persian, shows a completely different picture as regards its transmission: the inscriptions of the Achaemenid kings provide 47–50 male names of Iranian origin, but not a single female name. Fortunately, many names, among them various female names of Ancient Persia, are attested in texts of neighboring or other contact languages (the so-called 'Nebenüberlieferung'). Most important are, on the one hand, the reports of Greek historians, with their partly florid, tendentious and biased accounts, and on the other hand the cuneiform clay tablets written in Elamite, excavated in Persepolis, with minimal and sober texts more or less restricted to administrative matters.[4] Mayrhofer (OnP) lists a number of 1892 personal names transmitted in Elamite tablets, of which roughly 80% represent names of Old Iranian origin (of the remaining non-Iranian forms the majority is of Elamite origin, cf. OnP 11.3 pp. 304ff.). Only 90–93 entries of OnP are female, a considerable number compared to the rates of the Rigveda and the Avesta, but likewise assuredly including non-Iranian forms. Unfortunately, these non-Iranian names in many cases are hard to identify since, to make things worse, the Elamite version of cuneiform does not adequately convey all aspects of Old Iranian phonology, so that many forms attested on the tablets, though clearly

point to an Indo-Iranian ethnonym **Hăr(H)ya-* '(Indo-Iranian) people'.

4 Published in great part in Cameron (1948) and Hallock (1969). The onomastic material is treated in *Onomastica Persepolitana* by Manfred Mayrhofer (1973, here cited as OnP) and Tavernier (2007); the transliterations of the various cited names are taken over from the latter here. For further information on the transmission of Persian and Iranian cf. Stüber, Zehnder & Remmer (2009: 195ff).

marked as male or female names, are difficult to analyze linguistically, and their exact Persian forms remain unclear. The diagnostic value of this corpus of names and its statistical significance is thus limited to certain issues.

2 Initial questions

At the outset of this survey, two fields of questions arise:

1 What are the differences between names of women and men, and where do they arise? In the following sections, I will contrast the morphology of female names with that of male names and analyze them diachronically. Moreover, I will explore morphological phenomena which are shared by masculine and feminine names but show divergent rates of usage. In addition, I will evaluate whether it is possible to establish differences in the choice of lexemes and in semantics.
2 What evidence do names provide for the status of women in the various Indo-European cultures and in Proto-Indo-European society? It seems worthwhile to investigate the differences between male and female names under the premise that name-giving is an act bestowed by the powerful onto the less powerful. What relations of power can be deduced from a differentiated look on female and male onomastics?

3 Onomastic morphology: 'Motion' as the process of grammatical feminization

The prototypical human name in Indo-European is a two-stem full name (in German: 'Vollname'), i.e., a compound of two lexical elements; but there are also names consisting of only one lexical stem. In many instances female names differ from male names simply by the use of a 'motion' suffix (in German: 'Motionssuffix'), which transfers a word or a name to feminine gender. In the ancient Indo-European languages there are many pairs of female and male names differing only in the presence or absence of feminine 'motion'. Accordingly, female names mostly convey the same semantics as male names, as in the two following Greek examples. These compounds, denoting 'having a manly battle' and 'having fallow horses', reflect the areas of horse- or cattle-breeding and war experience, which are traditionally seen as male occupations:

Ἀνδρόμαχος m.	vs.	Ἀνδρομάχη f.
Ξάνθιππος m.	vs.	Ξανθίππη f.

The origin of 'motion' and the rise of the feminine gender is a frequently and hotly disputed issue in Indo-European studies, and it cannot be discussed here,[5] but the most common IE 'motion' suffixes contain the PIE phoneme *-h_2-. The vast majority of feminine nouns are endowed either with the suffix reconstructed as *-eh_2- (also found in the two Greek female names cited above), which appears in Indo-Iranian as -$ā$- (e.g., Vedic *Indrasenā́*-), or with the suffix *-ih_2- that results in Indo-Iranian -$ī$- (e.g., Avestan *Huuōuuī*-).[6]

Most scholars agree that one of the 'motion' suffixes par excellence, *-ih_2-, had the basic function of appurtenance and was used to form derivatives of the meaning 'belonging to X'. One often cited example is the Greek word for 'bee', μέλισσα < *$melit$-$i̯a$ < *$melit$-ih_2-, which was originally an *-ih_2-derivative of the word for 'honey' and meant 'the honey-ish one' or 'the one affiliated with honey'. This basic feature of the 'motion' suffix alone suggests that women in PIE society are onomastically defined by their relationship to others, possibly by their group, family, parents, husbands.

4 Onomastic modification: Abbreviations and hypocoristics

Abbreviation is a common feature of onomastic morphology, ubiquitously in use in today's languages, as shown by examples like *Pat* for both male *Patrick* and female *Patricia*, or *Beth* and *Liz*, both abbreviations for the female name *Elizabeth*. Unsurprisingly, abbreviation also occurs in the onomastics of the early Indo-European societies and turns up occasionally in the many male Indo-Iranian names. In rare instances both name versions are found denoting one and the same person – e.g., the Vedic name *Śyāvā́śva*- 'with/having dark horses', whose bearer on one occasion is called simply *Śyāvá*-. Strikingly, even within the small sample of Avestan female names, there is a group of forms that appear to be abbreviated versions of two-stem full names known from male persons:[7]

5 See Stefan Höfler's article in this volume.

6 It is disputed whether a group of Indo-Iranian feminines in -$ī$-, namely the nouns with the so-called '*vṛkī*-inflection', actually reflect another suffix of the shape *-ih_1-. That question will not be discussed in this article, nor can the whole question of motion be dealt with here other than in a simplified way.

7 For a detailed discussion of these short female names, see the entries in Remmer (2006).

- The female name *Uxšiieiṇtī-* is probably a short name of either *Uxšiiaṯ.ərəta-* m. 'letting truth grow' or *Uxšiiaṯ.nəmah-* m. 'letting honor grow'. These two male names obviously carry religious meanings and are attested as names of two redeemer figures in Avestan eschatology.
- Five women within the list of believers bear the name *Frānī-*, one of them being a daughter of Zaraθuštra. This form must reflect a feminine short version of the attested two-stem full name *Frānah-* m. < Indo-Iranian **pra-Hnas-* 'having a remarkable nose'. Certainly, as shown before, name shortening occurred also among male names, for instance in Avestan, where next to the cited forms *Frānah-* and *Frānī-* the male name *Frāniia-* appears, a shortened version of *Frānah-* (or rather its predecessor **Frānah-*) with the hypocoristic suffix *-iia-*. According to the prosopographical information provided in the name list, one of the bearers of the name *Frānī* most likely was the mother of the man *Frānah-*.
- A third female name, *Huuarəδī-,* can best be interpreted as an abbreviated version of the widespread Indo-Iranian name **Suu̯ar-dāta-* 'given by the sun(god)' which in its full version is found in many male attestations in the whole sphere of the ancient Indo-Iranian world, such as Old Persian/Elamite *Ú-mar-da-ad-da* and Old Persian/Akkadian *Ur-da-a-tú*. In the Old Indic branch, the name turns up already in the Mitanni tablets as *Šuwa-ar-da-ta* and in Sanskrit as *Sūryadatta-*, the latter with the replacement of the first element by the related usual Sanskrit word for 'sun'.[8]

Such a pairing of a name attested in its full form in the masculine and as an abbreviated form in the feminine is found also in the onomastics of Ancient Persia: next to the Old Iranian female name **Mandanā-,* transmitted by Herodotus as Μανδάνη, there is the male two-stem full name **Ariya-manda-*, transmitted by the Greek historians as Ἀριομάνδης. **Mandanā-* is most likely a feminine abbreviation of this name, with the frequent onomastic suffix *-ăna-* (feminine *-ănā-*) added on. Both historic persons are members of the Old Persian ruling dynasties. In fact, Μανδάνη, a Median princess by origin, wife of the Persian king Kambyses I and mother of Cyrus II, is an ancestor of Ἀριομάνδης, known as the military leader in the battle of the Eurymedon (466/465 BCE). The compound name **Ariya-manda-* means 'giving joy to the Aryas or Aryan people' and is built with the already mentioned word for 'Indic/Iranian people' as well as with a form

8 The basic conception of this name must have happened in PIE times, as shown by the Greek functional counterpart Ἠλιόδωρος.

of the Indo-Iranian verbal root **ma(n)d-* 'rejoice, give pleasure'. That this name long precedes the days of Cyrus II is shown by the fact that it is also attested in Indic, albeit in a slightly different shape, as the Rigvedic male name *Māndāryá-*. This form represents a patronymic formation 'descendent of **Manda-ā/ar(i)ya-*' which matches the Iranian full name **Ariya-manda-* except for the inversion of its constituents.[9]

So, again, we find this pattern: a woman carries a shortened name that lacks the full linguistic and onomastic information, while the full version is attested among the male names. It is striking that even within the small corpus of Avestan female names a substantial number of shortened names occur, and, furthermore, that both in Avestan and in Old Persian a full male name is found next to its abbreviated female version within one and the same family. These observations suggest that there is a gender variance with respect to the rate of occurrences – that women are called by abbreviated names more often than men.

A further instance of this '*Mandanā-* phenomenon' with a similar pairing is found in Old Germanic with the lexeme **hlewaz* 'glory', the Germanic descendant of the synonymous and onomastically very important PIE word **ḱléu̯os*. In the standard work *Lexikon der altgermanischen Namen* by Hermann Reichert (LaN), only two personal names of antiquity are mentioned with this lexeme: the well-known masculine two-stem full name *Hlewagastiz*, attested on the horn of Gallehus and one of the earliest known Old Germanic names, and the less prominent female name *Chlevvia*,[10] obviously a feminine abbreviation of either *Hlewagastiz* or another full name containing **hlewaz*.

Hypocoristic versions of names are very frequent in the onomastic systems of ancient Indo-European societies, for both men and women. Suffixes that form hypocoristics often have diminutive meaning and carry affective connotations. One of the most common hypocoristic suffixes in Indo-Iranian is *-kă-* with its variants *-akă-*, *-ikă-*, *-ukă-*. It is attested more often in classical Sanskrit and in Old Persian than in the Rigveda and the Avesta. For instance, the feminine counterpart to the Sanskrit male name *Chandaka-* is found in the Old Persian tradition as Σανδάκη; suffixal variations are attested as male Σανδώκης and female Σανδαύκη (name of a daughter of Dareios I).

9 Inversion of constituents is a well-known phenomenon in Indo-European onomastics. For a more thorough presentation of the group Μανδάνη, Ἀριομάνδης, and *Māndāryá-*, cf. Remmer (fc.).

10 Reichert LaN I/ii, p. 547. The female name is attested as *Clhevvia* in CIL XIII.1882, cf. LaN I/ii, p. 202.

Here again the question arises, whether the phenomenon under investigation has divergent rates of usage according to gender. At this point, it is worth considering the Old Iranian names provided by the Elamite cuneiform tablets, since their numbers seem sufficiently high to allow some statistical measuring. The corpus contains names of men and women of various social statuses, including names of common workers as well as high-ranking administrative staff, and even members of the ruling family. As stated above, the interpretation of these name forms is often blurred by the 'disguise' of Elamite cuneiform writing. However, short name forms and names with the *-kă̆*-suffix and its variants can be quite safely diagnosed, even if the lexemes on which the names are built remain unclear in many cases.

A counting of the names of the Elamite tablets listed by Mayrhofer in OnP reveals that, compared to male names, female names show more hypocoristic forms (most common *-akā-* and *-ukā-*), which for the most part consist of only one lexeme. Of the 1892 entries in OnP (pp. 121–258) approx. 90–95 names are clearly marked as female (cf. above). To make a balanced comparison between male and female names, some 40 forms known from the Elamite versions of the subcorpus of Achaemenid royal inscriptions should be excluded, since in these inscriptional texts women are not mentioned. Among the remaining male names (approx. 1760) a search for two-stem full names (i.e., without hypocoristic or patronymic suffixes) reveals around 250 forms (14,2%); and approximately 290 masculine forms (ca. 16%) are supposedly built with hypocoristic *-ka-* and its variants, most of them *-(a)uka-* and *-aka-*. Among the female names, the application of the same criteria yields 11–14 assumed full names and no less than 29 names (more than 30%) with a variant of *-kā-*, again mostly *-(a)ukā-* and *-akā-*. These figures seem to suggest that women were much more often called by a hypocoristic name using the *-kă̆*-suffix. Especially instructive is tablet PF 2038 (Hallock 1969: 629), dealing with the monthly rations of a group of male and female workers, which names 22 women, no fewer than 9 of whom have a name with hypocoristic *-(V)kā-*.[11]

Onomastic abbreviation and the use of hypocoristic suffixes is frequently found also among high-ranking people, including members of the royal Persian dynasties and nobility; examples include the woman *Iš-ti-in* who is mentioned on the Elamite tablets along with her title *dukšiš*, probably a word for 'princess'. Her

11 *Ma-tuk-ka₄, Ra-ap-sa-ka₄, Ši-ra-ak-ka₄, Bu-da-ak-ka₄, Ma-mu-ik-ka₄, Né-su-ka₄, Za-mu-ik-ka₄, Ku-in-su-ka₄,* and *Ku-in-su-ik-ka₄* (the last two forms probably being identical names). The likelihood that these names are one-stem names and abbreviations is high. Other possible female hypocoristic forms on this tablet are *U-še-ma, Ku-ra-a-za, Su-iz-za* und *Šá-iz-zí-iš*. A one-stem name without suffix is *Ba-u-da*.

name is a one-stem abbreviation of a full name based on Old Persian *ṛšti-* 'spear' or the equivalent of Avestan *ǐšti-* 'prosperity, wealth' and suffixed with the hypocoristic *-inăˇ-*, which is also found in Βαρσίνη, name of a great-granddaughter of Artaxerxes II. Both Βαρσίνη and the male name of prince *Bardiya-/Bṛdiya-* (second son of Cyrus II) are abbreviations of a compound name like **Miθra-bṛzănăˇ-* 'raising/magnifying (god) Mithra',[12] albeit in two different dialects of Old Iranian. This onomastic compound is found also in Elamite as *Mi-za-bìr-za-ka₄* attested as the name of a high-ranking woman, not abbreviated but with the *-kăˇ-*suffix.[13] Σανδαύκη, daughter of Dareios I, was already mentioned. The freedom with which the *-kăˇ-*suffix was used is illustrated by a Persian queen who was the daughter of Cyrus II and one of the wives of king Darius I. Her name is given by Herodotus as Ἀρτυστώνη and on the Elamite tablets as *Ir-taš-du-na*, both forms pointing to **Ṛtastūnā-* as the original Persian form, with *ṛta-* 'truth' as first element. On one tablet (PF 730) the scribe names her *Ir-taš-du-na-ik-ka* (probably for **Ṛtastūnakā-*) with the hypocoristic *-kăˇ-*suffixed form, despite the power imbalance between the queen (according to Herodotus the king's favorite wife) and himself, a clerk of the palace.[14]

In contrast, in the closely related and more archaic Avestan language, the suffix had pejorative connotations. Among the hundreds of male names it is only awkward figures, enemies of the Mazda religion, whose names exhibit the *-kăˇ-*suffix.[15] It seems that by calling somebody by such a name one would additionally express that this person is of inferior state in matters of morals and religion. On the list of the truthful followers, *-kăˇ-*suffixed names are almost totally absent, with only one exception: the female name *Kanukā-*, meaning roughly something like '(female) youngster, girlie'. Thus, the only person in the list of first Mazdayaznian believers whose name attests this depreciatory and patronizing element is female. Considering the enormous overabundance of male names attested in Avestan in general (see above), this is a possible piece of onomastic evidence of the lower status of women in prehistoric Indo-Iranian society.

12 As attested in Elamite as *Mi-ut-ra-bar-za-na* and in Greek as Μιθροβαρζάνης.

13 Cf. Remmer (2010: 182–186) for details on *Mi-za-bìr-za-ka₄*.

14 Certainly, these observations and numbers can only be a preliminary and tentative approximation, and to ensure and extend such socio-onomastic analyses, further data and research is needed which hopefully will be possible with new evidence and future editions of the Persepolis tablets and other sources.

15 As *Vaēsaka-, Humaiiaka-, Daršinika-, Niuuika-*, cf. Remmer (2006: 199f).

5 The name formula: Patronyms and pro-patronyms

In ancient Indo-European societies, filiation or other expressions of origin could be added as a name-like formation: patronyms and pro-patronyms express the descendance from father or grandfather. Women, too, could have patronyms and other filiation expressions, cf. the woman's name *Pā́vīravī-* 'daughter of *Pávīru-*' attested in the Rigveda, or names of the structure *X-putrī-* 'daughter of X', composed with the lexeme *putrī-* 'daughter'. A famous example is provided by the wife of the five Pāṇḍava-brothers in the Mahābhārata, who is far better known by her patronym *Draupadī-* 'daughter of *Drupada-*' than by her individual name *Kr̥ṣṇā-*. Occasionally women are onomastically defined as the mothers of their sons, e.g., Sanskrit *Bharataprasū-* 'having given birth to Bharata'.

On the other hand, as expected in a patrilinear society, metronyms, i.e., names or epithets revealing the mother's name, are hardly found. In Late Vedic texts, metronyms are attested in the name of some Brahmin men. These names, called 'Neo-Metronymika' by Schmitt (1995: 652b), are of the shape *X-putra-* 'son of (the woman) *X*', with *X* being itself a feminine patronym. So, for example, the male name *Gautamīputra-* means 'son of (the woman) *Gautamī-* (= daughter or female descendant of the man *Gautama-* or *Gotama-*)'. These neo-metronyms were not built to express reverence towards the bearer's mother herself but rather, as Paul Horsch (1965: 227–246) explains, to signify that his Brahmin origin was 'impeccable' not only on the father's but also on the mother's side. Such a statement was seen as necessary in times when the observance of the strict rules of separation between the castes was felt to be declining.[16]

6 Family names

Likewise, a name referring to the family of origin can be added, being usually modeled on the name of a forefather or remote ancestor. Zaraθuštra himself is sometimes referred to with the bipartite name formula *Zaraθuštra- Spitāma-* 'Zaraθuštra of the Spitāma family'. In very restricted contexts Zaraθuštra appears only with his family name, as in the vocative expression *Spitama* 'Oh Spitāmid!'. Women can likewise have a family name added to the individual name, as seen in the case of Zaraθuštra's daughter *Pourucistā-* who in one attestation is even named with a tripartite name formula: *Pourucistā- Haēcaṭ.aspānā- Spitāmī-*. *Haē-*

16 See also Stüber, Zehnder & Remmer (2009: 153–155) on this matter.

caṯ.aspānā- denotes her descendance from the *Haēcaṯ.aspa-*clan which is said to be closely related to Zaraθuštra (cf. Remmer 2006: 210).

Besides, in Avestan society, women could be named with their family name throughout, as seen with Zaraθuštra's wife, whose individual name is not transmitted: she is known exclusively by her family name *Huuōuuī-*, which just means 'member of the *Huuōuua-* family'. In contrast, her male relatives are named with a bipartite name formula, with the family name added to the individual name: *Frašaoštra- Huuōuua-* and *Jāmāspa- Huuōuua-*. In being called only by the family name, the woman *Huuōuuī-* is granted less onomastic individuality than her male relatives who are known in society with both family name and individual name. A similar, albeit less conclusive, instance of this is the name of a woman called *Asabanā-*. Probably also a family name, its masculine form is used as an epithet of two men negatively characterized in a semi-mythological context: *Kara- Asabana-* and *Vara- Asabana-*. Since the name *Asabană-* has no stringent Avestan etymology and its phonology is atypical of Younger Avestan, its origins may lie in either another Iranian tribe or an ethnic group of non-Iranian origin. If so, the name *Asabanā-* would actually convey the meaning 'woman of the foreign *Asabana-*clan'.

This custom of calling women only by their family name is reminiscent of the official naming system in ancient Rome where women were exclusively identified by the *nomen gentile* (the family name) of their fathers, while male citizens bore the *tria nomina* (*praenomen, nomen gentile*, and *cognomen*). Any girl or woman descending from the *gens Iulia* was thus compulsorily known by the name *Iulia*, as in the case of both the daughters of *Gaius Iulius Caesar* and his adoptive son *Gaius Iulius Caesar Octavianus* (later known simply as *Caesar Augustus*). Further identifications, such as *Iulia Caesaris filia* or *Iulia Augusti filia*, or the rare and exceptional attestations of female praenomina, however necessary, had no official character.[17] The combined evidence of the Avestan female names with *Huuōuuī-* and *Asabanā-* on the one hand and the Roman naming system on the other could suggest a tendency already in PIE to call girls and women more often by their family name, the rigid Roman system reflecting a unique and extreme development of this tendency.

7 Gamonyms or matrimonial names

When entering into a marriage, one partner often customarily takes over the name of the other; in the vast majority of Western and European cultures, it has

17 Cf. Stüber (2009: 224–230) for details on the female *praenomina* in Latin and Italic.

been the woman who takes on the name of her husband. There is evidence for reconstructing this custom back to prehistoric Indo-European cultures. In Old Indic, matrimonial names could be made simply by 'motion', i.e., by transferring the male partner's name into feminine gender (cf. Hilka 1910: 148), but there are also other ways to form gamonyms (cf. Remmer 2009a: 155). A peculiar process of deriving gamonyms from *i*-stems is found in Vedic, by which the wife of the male god *Agní-* 'fire' becomes *Agnā́yī-* 'wife of Agni' or 'Mrs. Agni'. The stem suffix *-i-* of the base-word *agní-* 'fire' undergoes a process of lengthening or 'upgrading' to a long diphthong *-āy-* before adding the usual 'motion' suffix *-ī-*. Synchronically, this gamonymic process, attested by few but secure examples, appears strange and archaic; but from an Indo-European viewpoint, it can be subsumed under a securely reconstructed derivational process in PIE, by which adjectives of appurtenance were formed based on sonorant-stem nouns. Thus, the female gamonyms that ultimately result from this derivational type – again – had the original meaning 'belonging to (the husband) X'.[18]

Furthermore, the PIE shape of the diphthong of this adjective of appurtenance probably was **-ŏ̯i̯-*, and in Ancient Greek, female names with the suffix **-ŏ̯i̯-* are very common – both mythological names like the goddess Λητώ and the Nereid Δωτώ and historical names like the poet Σαπφώ. Obviously, the PIE feminine gamonyms in **-ŏ̯i̯-* became frequently used at some early stage of ancient Greek history, hiving off from their original function as gamonyms of male *i*-stem names to make **-ŏ̯i̯-* an independent suffix for creating feminine hypocoristics and individualizing formations.[19]

It should further be noted that such adjectives of appurtenance in **-ŏ̯i̯-* would originally have been both feminine and masculine. Thus, by means of this word formation process, one could theoretically create not only female names but also male ones denoting 'belonging to'. However, for some pragmatic reason, their use in onomastics became restricted to deriving female names. The explanation that suggests itself is that women had a reduced legal status and were dependent on

18 For a parallel process with *u*-stems and a detailed presentation of the phenomenon under discussion, cf. Remmer (2007).

19 Besides this, there is a group of personifications of the type φειδώ 'thrift' that semantically emerge from a transition zone between onomastical and appellative formations and can be analyzed in the same way as German personalized abstracts like 'Frau Sparsamkeit'. The suffix is still productive in Modern Greek, an illustrating example being μαλάκω, which turned up at the end of the 20th century as the female counterpart of the widespread masculine slang word μαλάκας (roughly 'weakling').

their husbands, whereas men, apart from slaves, were free – a fundamental difference expressed here by onomastic morphology.

8 'Female' semantics in women's names and female *Nachbenennung*

Another question that deserves attention is whether women's names show special or 'female' semantics and lexicon. In an article entitled "Frauennamen aus Blumen", Jacob Grimm (1865) argued for a tendency of female names being built on lexemes of the floral world. Grimm's material, the basis of his argument, was too recent and barely covered the prehistoric dimension of PIE onomastics; still, several linguists, philologists, and Iranologists have advocated such gender-based interpretations of female names in several past studies of ancient Indo-Iranian onomastics. 'Feminine' semantics such as 'having long eyelashes' or 'desiring jewels' were attached to names that were clearly feminine but not amenable to easy interpretation, and female names were unhesitatingly, but with little cogent reason, translated with feminine semantics. On closer consideration and with today's knowledge, most examples of these highly individualizing interpretations that 'play the gender card', cannot be maintained[20] and must be replaced by others that belong to familiar 'male' semantic spheres, such as war, virtue, patriotism, horsemanship, and cattle-breeding.

An example is the name of *Hutaosā-,* wife of Zaraθuštra's patron Vīštāspa. *Hutaosā-* is revered in Zoroastrian religion for the crucial role attributed to her in the reformation of Zaraθuštra. For a long time in the relevant literature, her name was interpreted as 'having beautiful thighs', as proposed by James Darmesteter in 1884.[21] Since this interpretation was based on a far-fetched and linguistically disputable equation of the second element *taosa-* with Old High German *dioh* and English *thigh,* Mayrhofer justifiably compared *taosa-* with the Old Indic root √*toś* instead and corrected the denotation of the name first to 'donating well, with good gifts' (Mayrhofer 1977: 39f), and later, after a reinterpretation of the meaning of the root √*toś*, to 'the one who presses, thrusts herself much' (Mayrhofer in EWAia I 671f.). However, the Sogdian name *γ'wtws* 'driving cattle', with its

20 Cf. Remmer (2006: 16–23, 242–246 and, specifically on the Avestan female name form *Paēsaŋhanuua-*, 180–190).

21 Cf. Bartholomae (1904: 1822). See also Stüber, Zehnder & Remmer (2009: 15–17) on this issue.

second element *tws-* matching *taosa-*, suggests that the name *Hutaosā-* may also belong to the semantic sphere of stock farming, and that the compound name originally meant 'having good driving' → 'driving (cattle, horses etc.) well' (cf. Remmer 2006: 132ff). Accordingly, *Hutaosā-* can be seen as a further example of a feminized name originally deriving from the male sphere and cannot serve as evidence for the existence of female names expressing female features or virtues. Undoubtedly, there are names of the semantic sphere of physical appearance, but they are not at all restricted to an exclusively female ideal of beauty – as seen with the name complex *Frənah-, Frāniia-* and *Frənī-* (see section 4 above).

Subsequently in the Iranian world, the compound name *Hutaosā-* came to be restricted to being used as a female name in remembrance of its prominent Zoroastrian female bearer, comparable to names of female Christian saints in Europe.[22] In the Achaemenid dynasty, at least two or three female members are named with a Persian equivalent, transmitted in the forms Ἄτοσσα by the Greek historians and *Ú-tam-sa-na* and *Ú-du-sa-na-na* on the Elamite tablets. The first and most famous Achaemenid name bearer, Ἄτοσσα (I), was (like her sister, the already mentioned Ἀρτυστώνη) wife to Darius I and daughter to Cyrus II (cf. Remmer 2006: 132ff and 2009b: 200f). This makes *Hutaosā-*, or rather its Persian version, the first attested instance of female 'Nachbenennung' (i.e., the naming of somebody in remembrance of another person) in Iranian, but it cannot be used as an argument for female semantics in women's names.

However, a few other Avestan names deserve some attention in this regard.[23] First, there is the already mentioned name *Kanukā-* which most likely means something like '(female) fresher, girl'. Second, there is the female name *Vaδut-* with a peculiar *t*-stem morphology instead of one of the typical 'motion' suffixes. The lexeme on which the name is built resembles the Avestan word *vaδū-* (Ved. *vadhū́-*) 'bride, young woman'. A third formation, **Jaγrut-*, cannot be connected to an existing word, but with its initial reduplication syllable (*ja-*), which in nominal morphology sometimes conveys iterative function, it may have meant '(woman) who often/usually bears (children)', i.e., 'fertile woman', as opposed to the well-attested privative compound *ayrū-* (Ved. *agrū́-*) 'not having given birth; unmarried woman, young woman'. The Avestan appellative compound *huzāmit-* 'giving birth easily/having delivered easily', a derivative of *huzāmi-* 'easy delivery' and likewise a *t*-stem, fits these interpretations. These three onomastic forms in-

22 The name has been used as an argument that the Old Persian royal dynasties were followers of Mazdaism (Boyce 1982: 41f.).

23 Cf. the entries in Remmer (2006) for a more elaborate presentation.

deed seem to carry a specifically feminine meaning. However, they do so without any individualizing nuance. Quite the contrary, in fact: the semantics refer to very general aspects of womanhood, namely phases of physical development and fertility. Characteristically, the suffix *-t-* serves (among other functions) to create designations for female beings, including female animals, in Old Indic (cf. AiGr II,2: 321f §205).

9 Conclusion

Various historical disciplines give information on the status of women in ancient Indo-European societies – history, archaeology, literature, mythology, etc. – and provide evidence that women were not entirely without rights but could have a certain social influence. In the Zoroastrian tradition, for instance, Hutaosā, wife of the ruler Vīštāspa, had a crucial role in the establishment of the Zoroastrian religion. In later Vedic literature, female rishis (sage poets) appear. And as Brosius (1996) has shown, the clay tablets of Persepolis provide evidence that in Ancient Persia, some women had substantial influence in administration and were financially independent and legally responsible. The evidence provided by onomastics, however, does not corroborate the view of an emancipated female part of society in prehistoric times:

- Most female names are feminized male names.
- Women are often named after their family or marriage partner.
- Female onomastic morphology is a specialization of appurtenance morphology: women often have 'dependent' names (gamonyms or family names).
- Modification of full names (shortening, hypocoristification) occurs more often than among male names.
- There is little evidence for specific semantics of female names, apart from very general non-individualizing meanings referring to womanhood and fertility.

These facts show that, compared to men, the naming of girls and women in the ancient Indo-European world was almost devoid of individualization. A gender-based study of names supports the assumption of a patrilinear and patriarchal structure of the ancient Indo-European world and PIE society. Altogether, the evidence which names can provide clearly suggests that women in prehistoric Indo-European societies had a dependent and lower status.

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Gender in Indo-European

A synopsis

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Grammatical gender is one of the most interesting categories in the world's languages. Within the prehistory of the Indo-European family, we can discern a shift from an earlier two-gender system to a three-gender system, distinguishing masculine, feminine, and neuter nouns. This paper gives an overview of how this gender distinction plays out in the grammar, addressing gender agreement in pronouns, numerals, and adjectives. It then focuses on the origin of the feminine gender, which has been a hotly debated question in Indo-European linguistics for over a century. Finally, the paper provides an overview of what groups of nouns typically take feminine gender in the Indo-European languages and tries to investigate the mechanisms behind these assignment rules.[1]

Grammatical gender is not only one of the most intriguing phenomena in the languages of the world, it is also "perhaps the only grammatical category that ever evoked passion – and not only among linguists" (Matasović 2004: 13). In 2019, for example, the US-based dictionary *Merriam-Webster* named the non-binary pronoun *they* their word of the year,[2] catching the attention of many media outlets around the globe, and in 2021, a heated debate over gender-neutral language in the *Duden*, the preeminent dictionary of Standard German, filled the arts sections and op-ed pages of many German newspapers.

1 This paper was written during the project *Of beasts and men. The animals of the Proto-Indo-Europeans*, which received funding from the European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement No. H2020-MSCA-IF-2018-835954.

2 See https://www.merriam-webster.com/wordplay/words-of-the-year-decade-in-review (19 February 2024).

1 A fascinating category

The fascinating thing about grammatical gender is that it has "obvious links to the real world", namely "in the connection between many grammatical gender systems and biological sex" (Corbett 2014: 1). Compare the following sentences:

(1) *She* likes apples.
(2) *He* likes oranges.

In these phrases, the pronouns *she* and *he* do not just refer to two individuals who like apples and oranges, respectively, they also tell us whether the person referred to is (or is perceived as) a woman (*she*) or a man (*he*). The French pronouns *elle* and *il* fulfill the same function (*Elle* aime les pommes. *Il* aime les oranges.), but unlike their English counterparts[3] they also express grammatical gender.

(3) Voilà la table. *Elle* est pleine de fruits.
"Here is the table. It is full of fruit."
(4) Voilà le feu. *Il* est très chaud.
"Here is the fire. It is very hot."

The French language has a full-fledged system of grammatical gender, in which every noun belongs to either the masculine or the feminine class. Even though the table (*la table*) is not a biological female, it is grammatically feminine and therefore requires the use of the anaphorical pronoun *elle* 'she', just as the fire (*le feu*) is taken up as *il* 'he'. Depending on the gender of a given noun, certain other words (determiners, pronouns, adjectives) are required to appear in the correct corresponding form, e.g., *La table est pleine* 'the.F.SG table.F.SG is full.F.SG' (vs. *plein* 'full.M.SG') and *Le feu est chaud* 'the.M.SG fire.M.SG is hot.M.SG' (vs. *chaude* 'hot.F.SG').

For native speakers of French or many other European languages, grammatical gender does not seem like a big deal. Kids learn the gender of any noun automatically, mostly without questioning this system. Even for speakers of English and other languages that lack a fully gender-based noun classification system, the fact that pronouns can express the biological sex (and/or social gender) of the referent does not appear overly exotic. Yet, there are many languages in which

3 The feminine pronoun *she* is sometimes used to refer to ships, churches, islands, or nation states.

the biological sex of referents does not find an expression at all in the grammar of the language. For instance, the Finnish pronoun *hän* can refer to a person of any gender, as can Hungarian *ő*.

(5) *Ő* szereti az almát.
"He/She likes apples."

Gender is therefore by no means a universal feature of language. According to *The World Atlas of Language Structures*, from a sample of 256 languages of the world, 144 (approximately 56%) do *not* have a gender system (cf. Corbett 2013), including languages as diverse as Turkish, Mandarin Chinese, Maori, Nahuatl, and West Greenlandic. The fact that most European languages do exhibit grammatical gender in some way or other is directly linked to Indo-European heritage.

2 But what exactly is gender?

Charles Hockett proposed a definition of the term 'gender' that still seems valid today:

> Genders are classes of nouns reflected in the behavior of associated words. (Hockett 1958: 231)

These "associated words", i.e., the words that take on different forms depending on the gender of the noun, can be of several different categories. We see gender in pronouns, as in English *he*/*she*(/*they*), which mostly coincide with biological sex, but also in German *er*/*sie*/*es* or French *il*/*elle*, used for both biological sex and grammatical gender. Many languages express gender in articles or determiners, as for example French (6) or Czech (7).

(6)	*la*	*femme*	*le*	*garçon*
	the.F.SG	woman.F.SG	the.M.SG	boy.M.SG
	la	*table*	*le*	*feu*
	the.F.SG	table.F.SG	the.M.SG	fire.M.SG
(7)	*moje*	*dcera*	*můj*	*syn*
	my.F.SG	daughter.F.SG	my.M.SG	son.M.SG
	moje	*země*	*můj*	*stůl*
	my.F.SG	country.F.SG	my.M.SG	table.M.SG

Another place where we see gender is in adjectives, as for instance in the following noun phrases from Ancient Greek (8) and Middle Welsh (9).

(8)	ὠκέα	Ἶρις	ὠκὺς	Ἀχιλλεύς
	swift.F.SG	Iris.F.SG	swift.M.SG	Achilles.M.SG
(9)	*croen*	*gwynn*	*gwreic*	*wenn*
	skin.M.SG	white.M.SG	woman.F.SG	white.F.SG

Some languages also exhibit gender marking in verbs, as for example Modern Hebrew (e.g., *katávt* 'you.F.SG.wrote' vs. *katávta* 'you.M.SG.wrote'); in the Indo-European languages, this is not very common, though.[4]

The systematic influence of nouns on their associated words is called *agreement* or *concord*. In the noun phrases from (8), the adjective ὠκέα 'swift.F.SG' agrees with the grammatically feminine Ἶρις 'Iris' and ὠκύς 'swift.M.SG' agrees with the masculine Ἀχιλλεύς 'Achilles'.

(10)	*et stort hus*	*en stor have*
	'a big house'	'a big garden'

In the Danish phrases in (10), both the determiner (*et*) as well as the adjective (*stor-t*) agree with the neuter gender of *hus* 'house'. In *en stor have*, the common gender noun *have* 'garden' requires a different determiner (*en*) and a different agreement form of the adjective (*stor*). Agreement is thus an important component of morphosyntax in many Indo-European languages.

3 Two genders vs. three genders

Most branches of the Indo-European family attest a three-gender system of masculine vs. feminine vs. neuter. This is reflected in the Indo-Iranian branch, in Balto-Slavic, in Greek, Italic, Germanic, Celtic, and – with some idiosyncratic developments – in Tocharian and Albanian (cf. Matasović 2004: 33–72). Armenian has lost all trace of grammatical gender. Most scholars agree nowadays that the three-gender system is inherited from a common ancestor of all these branches. They also agree, however, that this system evolved from an earlier two-gender

4 An exception is the Slavic preterite (e.g., Russian *ona znala* 'she knew' vs. *on znal* 'he knew'), which goes back to a construction involving a participle.

system (common gender vs. neuter), which some argue is still reflected in the Anatolian branch, as this is widely believed to be the first branch to have split off from the family. In what follows, I will use the term Proto-Indo-European to refer to the proto-language of all Indo-European branches, and Core Indo-European for the stage after the split-off of the Anatolian branch.

The older system that distinguished common gender from neuter is still vaguely discernible through certain characteristics in the inflection of nouns. All neuters, for example, have the same form in the nominative and accusative, while most archaic masculine and feminine nouns bear the ending **-s* in the nom. sg. and **-m* in the acc. sg.

The exact path from a two-gender system to a three-gender system is still largely a mystery.[5] For a long time, Johannes Schmidt's (1889: 8–9) identification of the feminine morpheme **-ā* (i.e., **-eh₂* in laryngealistic terms) with the morpheme found in 'collectives' and neuter plurals (e.g., **i̯ugóm* n. 'yoke' → **i̯ugé-h₂* 'yokes' > Vedic *yugā́(ni)*, slightly remodeled in Greek ζυγά, Latin *iuga*, etc.) was the accepted opinion among many scholars of Indo-European studies. Building on this premise, the feminine gender was often explained as going back directly to collectives in **-(e)h₂* (cf. Tichy 1993, Fritz 1998, Hackstein 2012, Litscher 2014), which would explain, for example, why feminines in **-eh₂* have an asigmatic nom. sg. and a dual ending **-ih₁*.[6] In recent years, however, there has been growing skepticism towards this view (cf. Kim 2014, Melchert 2014, Nussbaum 2014, Lundquist & Yates 2014: 2099–2100), not least because the Anatolian branch not only preserves both paradigmatic neuter plurals in **-eh₂* (e.g., Hittite nom.-acc. sg. **šākuwan* n. 'eye' → nom.-acc. pl. *šākuwa* 'eyes') and *plurale tantum* collectives in **-eh₂* derived from common gender nouns (e.g., Hittite *alpaš* c. 'cloud' → nom. pl. *alpēš* 'clouds' and nom.-acc. pl. *alpa* 'cloudbank, mass of clouds'), but also common gender nouns in **-eh₂-*, both as abstracts like Lycian *arawa-* c. 'freedom' and as designations for persons of either sex like Lycian *lada-* c. 'wife', *kumaza-* c. 'priest' (cf. Hajnal 1994, Melchert 2014, Sasseville 2018). It is therefore more plausible that there was a continuity from Proto-Indo-European neuters to Core Indo-European neuters, and that the feminine gender originated within the common gender nouns (cf. Luraghi 2009, 2011, 2014). After its first emergence, we have to imagine an intricate set of rules that—by formal analogy and/or semantic

5 For a concise overview of the history of scholarship, cf. Neri & Schuhmann (2014: 1–4) and Lundquist & Yates (2018: 2099–2100). For a detailed account, see Litscher (2018: 33–106).

6 For possible explanations for the asigmatic nom. sg. of **-eh₂-* and **-ih₂-* stems, see the discussion in Litscher (2015).

association—assigned feminine gender to various groups of previously common gender nouns, more on which in section 9 below.

4 Where do we see gender in the Indo-European languages?

In the ancient Indo-European languages, the grammatical gender of a noun can only rarely be guessed based on superficial criteria. As mentioned above, a neuter noun usually has an asigmatic nominative, but some masculine and feminine nouns do, too, be it for phonological reasons (e.g., via Szemerényi's Law: ***ph₂térs* 'father' > **ph₂tḗr*) or in a systematic way (e.g., the Core Indo-European feminines/masculines in **-eh₂-*). On the other hand, one group of neuters is characterized precisely by the fact that they end in **-s* in the nom. sg., namely the neuter *s*-stems (e.g., **ĝénh₁-os* n. 'offspring'), though here **-s* is of course part of the suffix and not the ending. Neuters are also distinguished from masculines and feminines by the fact that they are always identical in the nominative and accusative, and some stem types (e.g., heteroclites) are only attested as neuters. When it comes to morphosyntactic alignment, neuter plurals in **-h₂* sometimes behave as singulars (the so-called τὰ ζῷα τρέχει ['the animals.N.PL run.3.SG'] rule), a pattern that is attested in Anatolian, Greek, Vedic (rarely), and Avestan. This phenomenon finds an explanation in the assumption that the paradigmatic plural of neuters continues a collective formation that was originally a singular before being reanalyzed as a plural (cf. Teffeteller 2019 and, skeptically, Melchert 2011). Initially, this collective could be derived from neuters and non-neuters alike (cf. Hittite *alpaš* c. 'cloud' → *alpa* 'cloudbank, mass of clouds' from above; Greek κύκλος m. 'wheel' → κύκλα 'wheels (as a set)'). Apart from taking singular verbal agreement, these collectives are plurals in every Indo-European tradition including Anatolian, which suggests that this reanalysis had already taken place in Proto-Indo-European.

Another area where neuters differ from common-gender nouns is the dual. While animates take the ending **-h₁e* (e.g., **pód-h₁e* '(two) feet' > Greek πόδε), neuters persistently have an ending **-ih₁* (e.g., **h₃(e)kʷ-ih₁* '(two) eyes' > Greek ὄσσε [**okʷi̯e*], Old Church Slavonic *oči*, Lithuanian *akì*, Armenian *ačʿ-kʿ* pl.; with secondary **-s-* Vedic *akṣī́*, Young Avestan *aši*). As with the neuter plural, *né* collective, it is thinkable that the form in **-ih₁* was originally derivational. Elsewhere, there is no formal difference between nouns of different genders. They share the same endings.

In what follows, I will focus not so much on the distinction between neuter and common (masculine/feminine) gender, which is an interesting matter in its

own right, but rather on the contrast between masculine and feminine and on the origin of the feminine gender in Indo-European.

On the formal side, there is no difference between masculine and feminine nouns. Most stem classes have members of either gender, be it root nouns (e.g., **pód-* m. 'foot' and **bʰr̥ĝʰ-* f. 'hill; stronghold'), thematic stems (e.g., **sṷéḱuros* m. 'father-in-law' and **snusós* f. 'daughter-in-law'), or other stem classes like **-ter*-stems (e.g., **ph₂tḗr* m. 'father' and **dʰugh₂tḗr* f. 'daughter'), *i*-stems (e.g., **h₁ó/égʷnis* m. 'fire' and **ḱlóṷnis* f. 'hip'), or *s*-stems (e.g., **h₁érh₂ōs* m. 'love' and **h₂éṷsōs* f. 'dawn'), to name but a few. The only systematic way to see grammatical gender and the difference between masculine and feminine nouns in the ancient Indo-European languages is through agreement, i.e., through the influence that these nouns exert on associated words. For Core Indo-European, there are only three classes of words that exhibit different agreement forms according to the gender of the corresponding nouns: adjectives (including participles), numerals (only 1–4), and pronouns. But on closer inspection, the picture is a little bit more complicated than it may seem at first glance.

5 Adjectival agreement

When it comes to adjectival agreement in Core Indo-European, we are faced with a paradox. On the one hand, feminine agreement forms with the ending **-eh₂-* for thematic adjectives can be reconstructed quite safely based on the ubiquitous pattern exemplified by Greek καλὴ κόρη, Vedic *priyā́ kanyā̀*, Latin *puella pulchra* 'pretty girl', Old Church Slavonic *dobra žena* 'good woman', Latvian *liela māja* 'big house', etc. In all these languages, the feminine of the thematic adjective takes on the endings of the feminine **-eh₂-* stems and is inflected accordingly (e.g., Latin *puella pulchra* 'pretty girl', gen. sg. *puellae pulchrae*, acc. sg. *puellam pulchram*, etc.). Formally, this ending **-eh₂* can be analyzed as **-e-h₂*, with **-e-* being the thematic vowel of the underlying adjective.

On the other hand, however, Ancient Greek has a considerable number of thematic adjectives 'of two endings' or 'terminations' that take the masculine set of endings (i.e., nom. sg. -ος, etc.) when agreeing with both masculine and feminine nouns. Compare νῆττα ἥμερος f. 'tame duck', ῥοδοδάκτυλος Ἠώς f. 'rose-fingered Eos', ἄλκιμος μάχη f. 'brave fight', χθών πάτριος f. 'land of the father', φωνὴ βάρβαρος f. 'foreign language', etc. (cf. Kastner 1967, Höfler 2022a). This peculiarity cannot easily be explained as secondary (cf. Wackernagel 1924: 47, Schwyzer & Debrunner 1950: 32, 36, Kastner 1967: 116, Fortson 2004: 119, Matasović 2004:

155, Weiss 2020: 213 note 18). Rather, it suggests that the agreement pattern with *-*eh₂*- for the feminine adjective is a relatively recent development that had not been fully generalized and grammaticalized when Core Indo-European split up. And while Greek is the only language that systematically preserves 'ungendered' feminine agreement forms of the thematic adjective, one other language might retain at least a trace of that earlier system: according to Olsen (1999: vi and 35), the Armenian *o*-stem adjective *amowl* (*amloy*, *-oc*ʿ) 'barren' goes back to a compound **n̥-putlo-* 'childless' (cf. Sanskrit *a-putra-*, Avestan *a-puθra-* without a son'). Since it is only used of women, Olsen argues that its *o*-stem inflection "supports the view that 'Adjektiva zweier Endungen' of the Greek type may in some cases reflect the situation of the proto-language better than the full gender distinction exhibited by Sanskrit" (Olsen 1999: vi).[7]

A recent origin of adjectival agreement is indeed also suggested by the situation found with athematic adjectives. In principle, the feminine is formed by adding the so-called *devī*-suffix *-*ih₂*- to the stem of the adjective: **pl̥th₂ús* 'broad.M.SG' (Vedic *pr̥thú-*, Greek πλατύς) → **pl̥th₂(e)u̯ih₂* 'broad.F.SG' (Vedic *pr̥th(i)vī́*, Greek πλατεῖα), **u̯éi̯du̯ōs* 'knowing.M.SG.' (Vedic *vidvā́ṁs*, Young Avestan *vīδuuå̊*, Greek εἰδώς) → **u̯idusih₂* 'knowing.F.SG' (Vedic *vidúṣī*, Young Avestan *vīθušī*, Greek ἰδυῖα). However, the use of masculine (common gender) agreement forms for the feminine athematic adjective is well-attested not only in Greek (e.g., ἡδὺς ἀυτμή 'pleasant odor', θῆλυς ἀϋτή 'women's battle cry'), but also elsewhere (e.g., Vedic *matíḥ … cā́ruḥ* 'dear thought', Gothic *jah handus is so taihswo was þaursus* 'and his right hand was withered'),[8] and some athematic stem classes lack feminine adjectives in *-*ih₂*- altogether, for example *s*-stem adjectives (e.g., Greek σαφὴς ἀρετά 'manifest virtue', Vedic *nā́rīḥ apásaḥ* 'busy women').[9]

In addition, the cognate pair Vedic *pī́varī* and Greek πίειρα 'fat.F.SG' (**píh$_x$u̯er-ih₂*), the feminines of the adjectives Vedic *pī́van-* and Greek πίων 'fat.M.SG' (**píh$_x$u̯on-*), respectively, suggests that these agreement forms in *-*ih₂*- were not (initially, at least) derived from the masculine (or common gender) adjective, but

7 The archaic thematic feminine **snusós* 'daughter-in-law' could also testify to this behavior for the uncompounded adjective in Proto-Indo-European if my etymology as **snusós dʰugh₂tḗr* 'daughter bound by marriage' with subsequent ellipsis of the head noun (see Höfler 2020: 195 note 53) is correct.

8 Cf. Neri (2003: 158 note 460), Braune & Heidermanns (2004: 120–121). Similarly perhaps in Old Lithuanian, see Stang (1966: 262).

9 Female names, however, that are based on *s*-stem adjectives or compounds with an *s*-stem second member regularly take *-*ih₂*-; cf. Greek Ἰφιγένεια, Vedic *Śavasī́-*, etc.

rather independent nominal formations,[10] and that they only secondarily became paradigmatically conjoined with the masculine (or, common-gender) adjective.[11] There might have even been a phase in which formations in *-*ih₂*- could also supply the feminine of a thematic adjective, as suggested (though not unequivocally) by the Tocharian evidence, where this is the rule, e.g., Tocharian B *tapre* 'high.M.SG' < **dʰubrós* and *tparya* 'high.F.SG' < [virtual] **dʰubrih₂* (cf. Kim 2014: 121–124, Hackstein 2012, Pinault 2008: 516-519, Fellner 2014a, 2014b).

Originally, the function of the *devī́*-suffix *-*ih₂*- seems to have been to create derivatives of 'appurtenative' meaning (i.e., 'belonging to X, related to X'), as in the eponymous example **di̯éu̯*- 'sky' → **dei̯u̯ih₂*- 'belonging to the sky' > 'goddess'.[12] Even though Vedic attests a handful of male personal names formed by this suffix (Remmer 2010[2011]), its specialization for creating designations for typically female referents can be already attributed to Core Indo-European, which explains its important role in the implementation of feminine adjectival agreement forms.

The prehistory of the other agreement suffix *-*eh₂*- or (more precisely) *-*h₂*- is murkier, since there are several, partly homophonous suffixes containing *-*h₂*-.

1 the *devī́*-suffix *-*ih₂*- (*-*i-h₂*-?) (see above)
2 the non-ablauting *vr̥kī́*-suffix *-*ih₂*- (*-*i-h₂*-?) likewise associated with the feminine gender (e.g., **u̯l̥kʷíh₂*- 'she-wolf')
3 the case ending of the early-PIE allative *-*eh₂* (e.g., Hittite *aruna* 'to the sea')
4 the case ending of the collective > neuter plural in *-*h₂* (e.g., **i̯ugé-h₂* 'yokes' > Vedic *yugā́(ni)*, Greek ζυγά, Latin *iuga*)
5 the ablauting *-*(e/o)h₂*- found as a stem-forming primary suffix (e.g., **méĝ-h₂*- 'much, many, big'; **gʷén-h₂*- f. 'woman', obl. **gʷn-éh₂*-; **pént-oh₂-s* m. 'path', obl. **pn̥t-h₂-* ´)
6 the non-ablauting *-*h₂*- used as a substantivizing deadjectival suffix (e.g., **h₂enkuló*- 'bent, curved' → **h₂énkule-h₂*- 'bent, curved thing' > Greek

10 See Kim (2014: 130–131). They are both derived independently from the heteroclite **píhₓu̯r̥* n. 'fat' (Greek πῖαρ n.): **píhₓu̯on*- is an internal derivative based on the oblique **píhₓu̯n̥*-, and **píhₓu̯erih₂*- is probably a *vr̥ddhi* derivative in *-*ih₂*- based on the strong stem. On the latter type see Rau (2007: 63–65); Remmer (2010[2011]: 158 with note 2).

11 There are numerous cases of suppletive feminine adjectival forms of various origin (cf. Greek μέγας m. : μεγάλη f. 'big', πολύς m. : πολλή f. 'much', Vedic *palitá*- m. : *páliknī*- f. 'gray', etc.).

12 The process seemingly also involved *vr̥ddhi* in the initial syllable (leading to schwebeablaut); see Remmer (2010[2011]: 158 note 2).

ἀγκύλη f. 'bend of the arm; noose, thong', Proto-Germanic **anhulōn-* f. 'strap, thong' as in Old English *ōl-þwang*; cf. Nussbaum 2014: 306, Kim 2014: 115–118, Höfler 2020: 192–194)

7 the non-ablauting **-eh₂-* attested in many branches as the typical feminine suffix creating abstract nouns (e.g., **bʰugéh₂-* 'flight' > Greek φυγή f., Latin *fuga*)

It seems plausible that the latter has a shared prehistory with one of the other **-h₂-*'s.

Recent years have seen a growing consensus that there is a connection between the thematic agreement form in **-e-h₂-* and the substantivizing deadjectival suffix **-h₂-* (cf. Nussbaum 2014, Melchert 2014, Kim 2014, Fellner & Grestenberger 2016: 144–146, Höfler 2022a; skeptically, Litscher 2018: 102–105), yet since the latter also derives masculine nouns (e.g., Latin *scaeuus* 'left-handed' → *scaeua* m. 'lefty'), the last word has not yet been said on this issue (see Höfler 2022a, 2022b for a discussion).

Taken together, the evidence suggests that the creation of agreement forms for the feminine adjective was a rather recent development in the history of the feminine gender, one which presupposes the existence of an already existing agreement distinction in other parts of the grammar.

6 Numerals

The other area for which we can reconstruct feminine agreement forms are the numerals from one to four. The words for 'one' and 'two' follow the pattern seen above in adjectives. The numeral 'one' behaves like an athematic adjective: next to **sém-s* 'one.M' (Greek εἷς, Tocharian B *ṣe*) and **sém* 'one.N' (Greek ἕν), we find the feminine **sm-íh₂* 'one.F' (Greek μία, Armenian *mi*), gen. sg. **sm-i̯éh₂s* > **si̯éh₂s* (Greek ep. ἰῆς) (cf. Peters 1980: 132 note 80). As with **píhₓu̯erih₂-*, the form **smíh₂*, gen sg. **si̯éh₂s* may originally have been an independent formation with no specific feminine flavor, which might explain its potential presence in Anatolian, where Hittite *šiu̯a-* 'one' looks like a continuant of **si̯eh₂-* < **smi̯eh₂-* (cf. Kloekhorst 2008: 750–751; and Eichner 2015: 20–21, arguing for a grammatical feminine in Proto-Indo-European). The word for 'two', on the other hand, follows the pattern of thematic adjectives, as if from a stem **d(u)u̯ó-* to which the dual endings were attached: besides **d(u)u̯óh₁(e)* 'two.M' (Vedic *d(u)vā́*, Greek δύω, Latin *duo*, etc.) and **d(u)u̯ói̯h₁* 'two.N' (Vedic *dvé*, Old Church Slavonic *dvě*,

Old High German *zwei*), we find **d(u)u̯éh₂ih₁* 'two.F' (Vedic *dvé*, Latin *duae*, Old Church Slavonic *dvě*).

The more intriguing agreement forms, however, are the ones for 'three' and 'four', which both exhibit an element **-sr-*. Compare **tréi̯-es* 'three.M' (Vedic *tráyas*, Greek τρεῖς, Latin *trēs*, etc.), **trí-h₂* 'three.N' (Vedic *trī́*, Greek τρία, etc.), and **tisrés* 'three.F' < **tri-sr-és*, attested in Indo-Iranian and Celtic (Vedic *tisrás*, Avestan *tišrō*, Gaulish *tidres*, Old Irish *téoir,* Middle Welsh *teir*); as well as **kʷetu̯ór-es* 'four.M' (Vedic *catvā́ras*, Greek [Doric] τέτορες, etc.), **kʷetu̯ór-h₂* 'four.N' (Vedic *catvā́ri*, etc.), and **kʷéte-sres* 'four.F' (Vedic *cátasras*, Avestan *cataŋrō*, Old Irish *cethéoir,* Middle Welsh *pedeir*) (cf. McCone 1993, Harðarson 2014).

The element **-sr-* in **t(r)isrés* 'three.F' and **kʷétesres* 'four.F' has been identified with a word for 'woman', **(h₁)sor-*, which is reconstructable on the basis of forms like **su̯e-sor-* 'sister', Cuneiform Luwian *ašrul(i)-* 'female', and Avestan *hāirišī-* f. 'woman' (cf. Fortson 2004: 120, Pinault 2013, Harðarson 2014, Sasseville & Steer 2022). Interestingly, it is also at the core of the Hittite suffix *-(š)šara-* that is used to create terms for female persons based on their male equivalents: compare Hittite *ḫaššu-* 'king' and **ḫaššuššara-* 'queen', or Hittite *išḫā-* 'master, lord' and *išḫaššara-* 'lady, mistress', as well as being found in Luwian, namely in Hieroglyphic Luwian *nanasri-* c. 'sister', and in Cuneiform Luwian *nāna-šr-iya-* 'sisterly' (besides *nāni(ya)-* 'brotherly'). The same element, yet in athematic shape *-šar*, is already attested in the oldest written accounts of Anatolian (and thus, Indo-European) linguistic material, namely in the Old Assyrian tablets from Kültepe/Kaniš (ca. 1930–1720 BCE), which contain a vast number of Anatolian names, many of which end in *-šar* and denote women, e.g., *Ḫapuwaḫšušar*, *Ḫištaḫšušar*, *Niwaḫšušar*, etc. (cf. Goetze 1954: 354–355, Zehnder 2010: 74, Harðarson 2014: 42).

Thus, we are seemingly dealing with an element that was already present in Proto-Indo-European and was used to derive words denoting female persons. This, however, does not presuppose a feminine gender. A neat parallel for **-sor* from a genderless language is the suffix *-né* in Hungarian that likewise creates words for the consort of a male officiary (e.g., *király* 'king' → *királyné* 'queen consort', *pap* 'priest' → *papné* 'wife of a priest') and is attached to names of men to indicate their wives (e.g., *Bartók* → *Bartókné* 'Mrs. Bartók', *Bartók Béláné* 'Mrs. Béla Bartók'). Etymologically, it is identical to the noun *nő* 'woman', which makes it aptly comparable to **-sor*, **-sr-* and its prehistory.

For the numerals **t(r)isrés* 'three.F' and **kʷétesres* 'four.F', this leads to the hypothesis that these forms were initially used to count groups of girls or women (cf. Oettinger 1986: 126, Hackstein 2010: 52–64, Pinault 2013: 245–246), and that the element **-sr-(es)* served as a classifier, i.e., a word or suffix that 'classifies' the nu-

meral depending on the type of its referent noun. Numeral classifiers are a widespread phenomenon in the languages of the world (cf. Gil 2013), and even English knows certain words in which a quasi-classifier can be used to count them (e.g., *three head of cattle*, *two pieces of paper*, etc.). Within the Indo-European languages, comparable numerals of younger origin are, for instance, found in Old Irish, where they are known as 'personal numerals' (cf. Stifter 2006: 231–232, Pinault 2013: 246). A form like Old Irish *triar* 'three' is used exclusively to count men (i.e., 'three men') and historically continues Proto-Celtic **tri-û̯irom* (with **-uir-* being the same element as in **û̯iros* 'man' > Old Irish *fer*). The fascinating thing about **t(r)isrés* 'three.F' and **kʷétesres* 'four.F' is thus that they are potential tangible evidence for the role of biological sex in the development of the feminine gender.

7 Pronouns

Gendered pronouns are a centerpiece of feminine morphology and are attested in all Indo-European branches except for Anatolian and Armenian.[13] A gender distinction between masculine and feminine can be reconstructed for the deictic pronoun **só* 'this.M.SG' (: **séh₂* 'this.F.SG' : **tód* 'this.N.SG'), the anaphoric pronoun **(h₁)ís* 'he.M.SG' (: **(h₁)íh₂* 'she.F.SG' : **(h₁)íd* 'it.N.SG'), the relative pronoun **hₓî̯ós* 'which.M.SG' (: **hₓî̯éh₂* 'which.F.SG' : **hₓî̯ód* 'which.N.SG'), and perhaps the interrogative pronoun **kʷís*, **kʷós* 'who.M.SG' (: **kʷéh₂* 'who.F.SG' : **kʷíd* 'what.N.SG'). In all these cases, the feminine nom. sg. is derived by adding **-h₂* to the stem of the pronoun. Apart from the intriguing **(h₁)íh₂* 'she.F.SG' (Lithuanian *jì*, Old Church Slavonic *ji*, Gothic *s-i*, Old Irish *s-í*, Vedic *iyám* < **(h₁)ih₂-om*), the most interesting form in this respect is the deictic pronoun **séh₂* 'this.F.SG' (Vedic *sā́*, Greek ἡ, Gothic *sō*, Tocharian B *sā*), because it shows that the feminine was derived from the stem of the masculine (i.e., erstwhile common gender) **só*, and not from the neuter **tód*.

Unlike with adjectival agreement, where the previous usage of masculine (i.e., erstwhile common gender) agreement forms for feminine nouns can still be seen directly in the Indo-European languages (see section 5), pronouns do not show any fluctuation in this regard (cf. Lühr 2014: 168–169). Feminine pronouns

13 However, within the personal pronouns for the first and second person there is generally no gender distinction, with the notable exception of Tocharian A, which secondarily developed two separate pronouns of the first person singular (nom./obl. m. *näṣ*, f. *ñuk*, gen. m. *ñi*, f. *nāñi*); cf. Jasanoff (1989a).

for feminine referents are deeply entrenched in the grammar of all Core Indo-European daughter languages that preserve the feminine gender, and are used for female referents even in some languages that have subsequently lost feminine gender and agreement such as English or Danish. This suggests that the grammaticalization of feminine pronouns had already been fully accomplished by the time of the split-up of Core Indo-European. Indeed, it can also be counted as support for the idea that the very point of origin of the feminine gender lies within pronouns, a word class which is cross-linguistically known to furnish the basis for noun class and gender systems (cf. Corbett 1991: 310).

As such, it is perhaps not wrong to imagine that forms like **séh₂* and **(h₁)íh₂* were either created intentionally to refer to female persons, or were formed for a different reason but repurposed to refer to female persons at some later stage (cf. Kastner 1967: 116, Pinault 2011, Hackstein 2013: 95, Lühr 2014: 193–194, Luraghi 2014: 225–226). Since **-h₂* is found in the ending of the Proto-Indo-European allative (e.g., Hittite *aruna* 'to the sea' < **-eh₂*; *mēnaḫḫ-anda* 'opposite' < **méneh₂* 'to the face (*mēna-*)' + *anda* 'into'; cf. Nikolaev 2010: 68) and, as a suffix, is used in deadjectival substantivizations (e.g., **h₂enkuló-* 'bent, curved' → **h₂énkule-h₂-* 'bent, curved thing'), a process that could be described as 'determining', one could postulate some sort of deictic function for **sé-h₂* 'that one (vel sim.)',[14] which would have designated 'the other one' (i.e., 'the woman') in a male-centered, patriarchal society (though this is little more than idle speculation at this point).[15] Be that as it may, at this stage the pronouns **séh₂*, **(h₁)íh₂*, etc. would have still been grammatically common gender.

It is probably no coincidence that the desinences found in feminine pronouns, **-eh₂* (**séh₂*, **hₓi̯éh₂*, etc.) and **-ih₂* (**(h₁)íh₂*), resemble the suffixes that prototypically create feminine nouns and feminine agreement forms of the adjective. The fact that this correspondence is limited to the strong stem of the pronoun, however, indicates that a one-to-one correspondence is probably the wrong way to think about it. The apparent congruence can be due to an analogical association and subsequent grammaticalization of formerly unrelated morphological material. In any event, the singular oblique of the feminine pronoun contains an element **-si̯eh₂-* (e.g., dat. sg. **té/ósi̯eh₂ei̯* > Vedic *tásyai*, Gothic *þizai*, Old Church Slavonic *toji*) that, when compared to **-sm-* of the masculine and neuter oblique (e.g., dat.

14 Compare also the personal pronoun doublets with and without **-h₂*: **tú* and **tú-h₂* 'you.SG' and **h₁éĝ* and **h₁éĝ-(o)h₂* 'I'. A similar account, though in its details very different, is presented in Pinault (2011).

15 But compare – if only impressionistically – Catullus' use of *illa* 'that one' in his poems to refer to the object of his desire.

sg. **té/ósmōi̯* > Vedic *tásmai*, Gothic *þamma*, Old Church Slavonic *tomu*), allows an identification with the numeral **sém-* 'one', fem. obl. **si̯eh₂-* (see above) in some way or other.

8 The origin of the feminine gender

The question of the origin of the feminine gender in Indo-European has been one of the most-discussed topics in the history of Indo-European linguistics, and there is still no commonly accepted hypothesis. As mentioned above, there has been a shift in recent years, with more and more scholars abandoning the traditional idea that the feminine gender arose from a reanalysis of collectives, in favor of a more nuanced picture, in which biological sex on the one hand and pronouns on the other play an important role. As a whole, rather than pursuing a monocausal explanation,[16] it is preferable to view the emergence of the feminine as a gradual process that needed a number of 'ingredients', i.e., a number of initially unrelated elements that were present in the language and which together could lead to the establishment of a new noun class. Let's have a look at these 'ingredients'.

As mentioned above, perhaps the main component were the pronouns **séh₂* and **(h₁)íh₂* that were ultimately based on the common gender forms **só* and **(h₁)ís*, respectively. They were created specifically or came to be used secondarily to refer to female persons. Exactly why this happened, we do not know. It is noteworthy, however, that **séh₂* and **(h₁)íh₂* resemble the suffixes **-eh₂-* and **-ih₂-*, which are both found in other elements of feminine morphology.

The suffix **-h₂-* did not in and of itself have a feminine meaning. Apart from being a 'primary' suffix (see above §5), we know it as a 'secondary' denominal suffix that has substantivizing function (**h₂enkuló-* 'bent, curved' → **h₂énkule-h₂-* 'bent, curved thing'). These formations were initially common gender, as seen in Anatolian (e.g., Lycian **kumeze-* 'sacred' → *kumaza-* c. 'priest'), and vestigially in masculine *ā*-stems in Greek (e.g., ταχινός 'swift' → ταχίνᾱς m. 'hare') and Latin (e.g., *scaeuus* 'left-handed' → *scaeua* m. 'lefty'). Nevertheless, recent scholarship has recognized a connection between **-h₂-* as a substantivizing suffix and the feminine agreement forms of thematic adjectives.[17] So, it is legitimate to regard

16 Thus also Melchert (2014: 268): "not […] necessary or wise to attempt to explain the rise of the feminine gender in terms of a single factor."

17 Cf. Nussbaum (2014), Melchert (2014), Kim (2014), Fellner & Grestenberger (2016:

the denominal suffix *-h_2- as another factor on the way to the grammatical feminine.

The more obvious feminine suffix, however, is the *devī*-suffix *-ih_2- (with an asigmatic nom. sg.). As mentioned above, its primeval function may have been to create relational derivatives, which can still be seen in formations like *$de\underset{\wedge}{i}\underset{\cup}{u}ih_2$- 'goddess' < *'belonging to heaven (*$d\underset{\cdot}{i}\acute{e}\underset{\cup}{u}$-)' (cf. Remmer 2010: 158 note 1). Unlike for *-h_2-, however, there is overwhelming evidence that *-ih_2- was indeed prevalent in words denoting women,[18] making it a substantial ingredient for the grammatical feminine (cf. Stüber 2007b, Kim 2014). Apart from lexicalized formations such as *$de\underset{\wedge}{i}\underset{\cup}{u}ih_2$- 'goddess' and *$h_3r\acute{\underset{\cdot}{e}}\hat{g}nih_2$- 'queen', and feminine adjectives like *$píh_x\underset{\wedge}{u}erih_2$- 'fat', a cornerstone of formations in *-ih_2- denoting persons of female gender is personal names.

As discussed by Ulla Remmer (this volume), female personal names in many Indo-European traditions typically end in suffixes that continue Proto-Indo-European *-eh_2- and *-ih_2-. Despite being an elusive part of the reconstructable lexicon of Proto-Indo-European (see Stüber, Zehnder & Remmer 2009), names must have been one of the most central elements of every-day life and speech. Female personal names in *-eh_2- and *-ih_2- are therefore arguably another ingredient on the way to the attested agreement system.

A further, if perhaps slightly minor constituent were nouns that ended in *-h_2 and denoted female persons. As far as the reconstructable evidence goes, there are fewer of these than we would expect. Many of the prominent lexemes referring to biological females belong to other stem classes: *$méh_2tēr$ 'mother', *$d^hugh_2t\acute{\underset{\cdot}{e}}r$ 'daughter', *$s\underset{\cup}{u}ésōr$ 'sister', *$snusós$ 'daughter-in-law', *$h_x\underset{\cdot}{i}énh_2tēr$ 'husband's brother's wife', *$s\underset{\cup}{u}e\hat{k}ruh_2s$ 'mother-in-law', *h_2enh_xos 'grandmother', etc. In contrast to that, the number of reconstructable appellatives in *-ih_2- is quite low (cf. *$de\underset{\wedge}{i}\underset{\cup}{u}ih_2$ 'goddess', *$h_3r\acute{\underset{\cdot}{e}}\hat{g}nih_2$ 'queen'), and the only stem in *-eh_2- is the rather specific *$h_1\underset{\cup}{u}id^hé\underset{\cup}{u}eh_2$ 'widow'. There was, however, at least one stem with an ablauting suffix *-$(e)h_2$- that might have played a considerable role, viz. *$g^wén$-h_2, gen. sg. *g^wn-$éh_2$-s 'woman' (continued directly by Old Irish *ben*, *bé* 'woman', gen. sg. *mná*; for the details see Jasanoff 1989b), which was the basis of many words denoting 'woman' in the individual branches (*$g^wnéh_2$- in Vedic *gnā́*- f. 'divine female', Old Avestan *gənā*- f. 'woman, wife'; *$g^w\underset{\cdot}{n}(n)éh_2$- in Greek γυνή, Boeotian βανά; *g^weneh_2- in Proto-Germanic *$k^wenōn$- 'woman', Proto-Slavic *$ženà$, Tocharian B

144–146); see Höfler (2022a) for a detailed discussion.

18 On a few Vedic masculines with *devī*-inflection see Debrunner (1954: 407–408), Remmer (2010[2011]: 160–165).

śana – see the discussion in Simon, Sasseville & Opfermann 2022), and thus probably a central element. While it is remarkable that abstracts and verbal nouns in **-eh₂-*, which are a large and well-attested group in many Indo-European traditions, are without exception feminine, their role in the emergence of the feminine gender was probably only circumstantial. We will return to them in section 9.

The last ingredient is one of the strongest pieces of evidence for the importance of biological sex in the establishment of the *genus femininum* as a new noun class, namely the numerals 'three' and 'four'. As outlined above (§6), the feminine forms **t(r)isrés* 'three.F' and **kʷétesres* 'four.F' attested in Indo-Iranian and Celtic (Vedic *tisrás*, *cátasras*, Avestan *tišrō*, *cataŋrō*; Old Irish *téoir, cethéoir*, Middle Welsh *teir*, *pedeir*) contain an element **-sr-* that can probably be identified with a noun for 'woman', and therefore suggest an initial application for counting groups of female persons.

With all these ingredients in mind, the path to the emergence of the grammatical feminine could be envisaged as follows: initially, there was only one set of pronouns, numerals, and adjectives to refer to all nouns of the common gender, denoting persons of male and female biological sex alike. To designate the spouse (or other female dependent) of a man, a suffixoid **-s(e/o)r-* (originating in compounds and/or univerbations with a second element **(h₁)sor-* 'woman') could be used both in appellatives and names; this stage is still reflected in Anatolian (cf. Hittite *išḫā-* 'master, lord' → *išḫaššara-* 'lady, mistress'). The suffix was also used to count groups of three (**t(r)isrés*) and four (**kʷétesres*) women, which marked the first grammatical difference in the language structure that was based on biological sex. In the function of creating female consort names, **-s(e/o)r-* was later replaced by the suffix **-ih₂-* that initially formed common-gender derivatives with a meaning 'belonging to X' (e.g., **deiu̯ih₂-* *'belonging to heaven (**diéu̯-*)' > 'goddess') and became more and more restricted to deriving words and names for wives or female dependents (e.g., **h₂nér-* m. 'man' → **h₂nēr-ih₂-* 'wife' > Vedic *nā́rī-* f., Young Avestan *nāirī-* f.; Vedic *Agní-* m. 'Agni' → *Agnā́yī-* f. 'Agni's wife'; see Remmer, this volume).

At some point, the innovated pronouns **séh₂* and **(h₁)íh₂* as well as the numeral **smíh₂* (original function unknown) came to be used exclusively to refer to female persons. This was probably facilitated by the fact that a few appellatives and many names denoting women already ended in **-ih₂* and (to a lesser extent) **-eh₂*. At this point, one cannot yet speak of a feminine gender. Even the next logical step, the extension of the female pronouns **séh₂*, **(h₁)íh₂*, etc. to also denote female animals, did not establish a new noun class. The stage we are at now resembles the system of Modern English, where the anaphoric pronoun *she* is used

for female persons and animals alike (and where suffixes such as *-ess* [e.g., *actress*] can optionally denote biological females).

The crucial moment in the genesis of the feminine gender is when this system of anaphora was extended analogically to include nouns that did not denote female persons or animals but could in some other way be associated with these lexemes, for instance by homophonous desinences or semantic association. While prior to this point, a common-gender verbal noun such as **bʰugéh₂* 'flight' (Greek φυγή f., Latin *fuga* f.) or a common-gender concrete noun such as **h₂ih₁/₃séh₂* 'shaft (of a cart)' (Hittite *ḫišša-* c., Vedic *īṣā́-* f.) would have been referred to by **só* 'this', it now became possible to use **séh₂* instead. And since **séh₂* was used for nouns that took the numerals **t(r)isrés* and **kʷétesres* when being counted, the next step would be employing **t(r)isrés* and **kʷétesres* by analogy for tallying 'flights' and 'shafts' as well. The loss of their original, literal meaning ('three women' and 'four women') in favor of the acquisition of a grammatical function (i.e., counting words of a specific noun class) marks the grammaticalization of the new system. From this point on, it is fair to speak of a new grammatical gender, and more and more nouns joined this class by assignment (see section 9).

When this agreement system had established itself, a logical next step was to create or repurpose formations in **-ih₂-* as the feminine agreement form of the adjective. Since these formations were originally substantival, their employment as adjectives probably came about in predicative usage. The origin of the agreement form of the thematic adjective in **-e-h₂-* is somewhat more obscure, but the fact that it coincided formally with the desinence of feminine nouns in **-eh₂* and the pronoun **séh₂* must surely have helped expand the pattern to the attested uniformity found in most languages (except Greek).

The establishment of a new noun class, endowed with a distinct set of agreement forms for pronouns, numerals, and later also adjectives, opened up a whole array of possibilities, a new dimension, which the language began to exploit for making distinctions that previously had been impossible to make (e.g., **h₁éḱu̯os* c. 'horse (of either sex)' >> **h₁éḱu̯os* m. 'stallion', **h₁éḱu̯os* f. 'mare'). This will be the topic of the last section.

9 How nouns become feminine

In this last section, we want to look at the various groups of words that acquired feminine gender. Note that under the proposed scenario, there was a continuity from common gender to masculine gender, meaning that the former com-

mon-gender agreement forms are identical to the later masculine agreement forms (e.g., **só*, **(h₁)ís*, **séms* 'one', etc.). It is thus not the masculine gender that is assigned to any given noun, but the feminine gender, i.e., the allocation of a word to the new noun class was an intentional process, governed by specific rules and principles, the most influential of which was biological sex.

If the road map outlined above is accurate, the natural hotbed of the feminine gender was words referring to female persons, such as the already mentioned **gʷénh₂* 'woman', **méh₂tēr* 'mother', **dʰugh₂tḗr* 'daughter', **su̯ésōr* 'sister', **snusós* 'daughter-in-law', **hₓi̯énh₂tēr* 'husband's brother's wife', **su̯eḱruh₂s* 'mother-in-law', **h₂enhₓos* 'grandmother', **h₃rḗĝnih₂* 'queen', **h₁u̯idʰéu̯eh₂* 'widow', etc. The second sphere were personal names of women and girls, which must have been a central part of everyday conversation, but which are, sadly, almost entirely unknown to us. As a third component of feminine-gender nouns, one can invoke names denoting female goddesses: apart from the word for 'goddess' itself, **deiu̯ih₂*, the most prominent female numina are **h₂éu̯sōs* 'Dawn' and **dʰéĝʰōm* 'Earth' (though the latter is never attested as such; see Mallory & Adams 1997: 174). It is conceivable that the appellatives **h₂éu̯sōs* 'dawn' and **dʰéĝʰōm* 'earth' followed suit and were also assigned feminine gender along the way.

The last group for which the feminine gender was an obvious choice were nouns denoting female animals. Most Proto-Indo-European zoonyms were epicene, i.e., they were used for males and females alike (e.g., **gʷṓu̯s* c. 'bovine', **h₂ó/éu̯is* c. 'sheep', **h₁éḱu̯os* c. 'horse'). Words that exclusively denoted the females of a certain species were rare and—if existent at all—were limited to livestock animals; possible examples include **u̯aḱ(ḱ)éh₂* 'cow' (Vedic *vaśā́-*, Latin *uacca*) and **súhₓs* 'sow' (if the root etymology as 'birther' is correct; cf. Vedic *sū́te* 'gives birth').[19] After the rise of the feminine, the erstwhile common-gender epicene animal terms could now be used in the masculine to refer to the male individual and in the feminine to refer to the female individual (e.g., **h₁éḱu̯os* m. > Greek ὁ ἵππος 'the (male) horse, stallion' and **h₁éḱu̯os* f. > ἡ ἵππος 'the (female horse), mare', Old Latin *equus fēmina* 'mare'). In some branches, the feminine usage of the former epicene noun became prevalent (e.g., **h₂ó/éu̯is* c. 'sheep' >> Proto-Germanic **awiz* f. 'ewe'; **gʷṓu̯s* c. 'bovine' >> Proto-Germanic **kūz* f. 'cow'), which led to the introduction of new words for the males (e.g., Proto-Germanic **steuraz* 'bull') and new epicene designations (e.g., Proto-Germanic **fahaz*, **skēpa-* n. 'sheep'). The creation of so-called 'motion' feminines, i.e., words for female

19 This designation may be due to the fact that sows have considerably larger litters than other domesticated animals.

individuals derived from a masculine noun using overt 'feminine' morphology (i.e., mostly *-*eh₂*- and *-*ih₂*-) is also a post-Core-Indo-European development and happened individually in certain branches (or pre-stages thereof). A formation like **h₁éḱu̯eh₂* 'mare', though suggested by the apparent cognates Vedic *áśvā*, Lithuanian *ašvà*, Latin *equa* 'mare', probably did not exist in Core Indo-European. Greek ἡ ἵππος and Old Latin *equus fēmina* 'mare' preserve the older stage, i.e., **h₁éḱu̯os* f. 'mare' (cf. Hackstein 2013: 96–98).

This is where biological sex as a factor for the assignment of feminine gender ends. All other groups and categories of words that typically have feminine gender in the Indo-European languages owe their assignment to a heterogeneous set of mechanisms ('gender assignment rules'), many of which are not entirely transparent (cf. Matasović 2004: 79–131). While some are based on formal features such as congruent suffixes (see below and cf. Matasović 2004: 136–138), others are seemingly motivated by semantic associations or perhaps animistic beliefs. For instance, there is another group of zoonyms that acquired feminine gender, albeit in a way unconnected to biological sex. The generic word for 'duck', for example, **h₂énh₂ti*-, **h₂n̥h₂téi̯*-, is feminine in most branches (Vedic *ātí*- f., Greek νῆττα f., Latin *anas* f., Lithuanian *ántis* f., Serbo-Croatian *ȕtva* f., Old English *ænid* f., Old High German *anut* f., Old Norse *ǫnd* f.), and it is not quite clear why this is the case. The Proto-Indo-European word for 'bird', **h₂éu̯i*-, **h₂u̯éi̯*- (notably of the same inflectional type[20] as 'duck') seems to have been epicene (though the direct evidence is limited to Vedic *véṣ*, *víṣ* m., Avestan *vīš* m., and Latin *auis* f.), and so do the words for 'goose', **ǵʰáns*- (epicene in Greek χήν, feminine in Proto-Germanic **gans*, Lithuanian *žąsìs*, Proto-Slavic **gǫsь*, Old Irish *géiss* 'swan', masculine in Vedic *haṁsá*-, Latin *ānser*), and 'crane' (epicene in Greek γέρανος, Latin *grūs*, Welsh *garan*, masculine in Proto-Germanic **kranan*-, Proto-Slavic **žeravь*, feminine in Lithuanian *gérvė*). The word for 'eagle', on the other hand, **h₃érō*(*n*), is masculine throughout (Gothic *ara*, Old Norse *ari*, *ǫrn*, English *ern*(*e*), German *Aar*, Lithuanian *erẽlis*, Serbo-Croatian *òrao*, Russian *orël*, Polish *orzeł*, etc.). This might give the impression that stereotypical undertones that speakers connected with a certain animal played a role in assigning masculine and feminine gender, respectively (cf. Matasović 2004: 93).

An even more intriguing case is the fox and its different Indo-European designations. In almost all traditions, the generic word is feminine, even if they do not continue the same etymon. Compare the feminines Latin *uolpēs*, Greek ἀλώπηξ,

20 The reconstruction as a proterokinetic *i*-stem differs from Schindler (1969) and Zair (2011) but accounts best for both Vedic and Latin (see Lindner 2021: 27).

Lithuanian *lãpė*, Latvian *lapsa*, Proto-Slavic **lisa*, Albanian *dhelpër*, Proto-Germanic **fuhōn-* (seemingly more primary than Proto-Germanic **fuhsaz* m.). An explanation for this that suggests itself is that the fox was seen as more 'feminine' than its predatory counterpart, the wolf, **u̯ĺ̥kʷos*, which is masculine everywhere (cf. Vedic *vṛ́ka-*, Avestan *vəhrka-*, Lithuanian *viĨkas*, Old Church Slavonic *vlъkъ*, Greek λύκος, Latin *lupus*, Proto-Germanic **wulfaz*, Tocharian B *walkwe*). A similar explanation is possible for the feminine gender of words for 'weasel' (cf. Proto-Germanic **wisulōn-*, Latin *mūstēla*, Greek γαλέη, Proto-Slavic **lasica*, Italian *donnola*, all etymologically unrelated, but all feminine; cf. Bettini 2013), and it may be that the reason many modern-day generic words for 'cat' are feminine in traditions unrelated to each other (cf. Albanian *mace*, German *Katze*, Russian *kóška*, Modern Greek γάτα, Lithuanian *katẽ*, etc.) is that they received their gender in 'opposition' to the masculine 'dog' (cf. Albanian *qen*, German *Hund*, Russian *pjos*, Modern Greek σκύλος, Lithuanian *šuõ*, etc.). One could think of this phenomenon as 'oppositional gender assignment', i.e., that in a pair of concepts that were semantically related (though this relationship could be manifold), one (the stronger, bigger, more prominent one) was assigned masculine gender, while the other (the lesser, smaller, more delicate one) was given feminine gender. This principle may also be key to understanding why so many different words for 'hand' are feminine (cf. Greek χείρ, παλάμη, παλαστή, Latin *manus*, *palma*, Proto-Germanic **handuz*, Old Irish *lám*, Proto-Slavic **rǫkà*, Lithuanian *rankà*, Young Avestan *pərənā-*, etc.), with its antipode *pód-* 'foot' being, of course, masculine (Vedic *pā́d-*, Greek πούς, Latin *pēs*, Proto-Germanic *fōts*, etc.).

An assignment rule of a different kind seems to have operated in tree names. In both Latin and Greek, for example, inherited dendronyms are almost exclusively feminine (even if the Greek word for 'tree', δένδρ(ε)ον, is neuter) and it is plausible that this is a legacy from a common proto-stage. One consequence of this rule is that many Latin tree names are feminine exceptions within their mostly masculine stem classes (e.g., the *o*-stems *fāgus* 'beech', *laurus* 'laurel', *corulus* 'hazel', etc.; the *u*-stems *quercus* 'oak', *pīnus* 'pine'; even the word for 'tree' itself, the *s*-stem *arbōs*, *arbor*, gen. *arboris*); this is mirrored in Greek (the *o*-stems φηγός f. 'oak', λύγος f. 'chaste tree', κυπάρισσος f. 'cypress'; the *u*-stem πίτυς f. 'pine'; etc.), although feminine *o*-stems are not as rare in Greek as in Latin.[21] The reason for

21 In the other branches, this rule was obliterated via the tendency to adjust the gender of a noun to its stem class or the stem class of a noun to its gender, so that feminine *o*-stems became either masculine (cf. **kóslos* f. >> Proto-Germanic **haslaz* m. 'hazel') or were transformed into *ā*-stems (cf. **bʰeh₂ĝós* f. >> Proto-Germanic **bōkōn-* f. 'beech'). That this is a recent development is suggested by cognate mismatches such as Lithuanian

the consistent feminine gender of dendronyms is unclear;[22] it may be related to animistic beliefs about trees, for which one could compare the dryads or tree nymphs in Ancient Greek mythology.

Another feature, typical of all Indo-European languages, is that most non-neuter verbal nouns are feminine. This is true for all stems in **-eh₂-* (**bʰugéh₂-* 'flight', **tomh₁éh₂-* 'cut(ting)', etc.), **-ti-* (**men-ti-* 'thought, thinking', **ĝenh₁-ti-* 'birth, descendance', **h₃ekʷ-ti-* 'synopsis', etc.), and root nouns (**bʰúg-* 'flight', **i̯úg-* 'yoking', etc.). Again, the reason for this is not obvious, but it has long been known that there is a typological parallel in Hebrew, where many abstract nouns are also feminine (e.g., *hulédet* f. 'birth', *maḥšaváh* f. 'thought', *'aṣma'út* f. 'independence', etc.).

A striking feature of the mentioned types (**-eh₂-*, **-ti-*, root nouns) is that they are also attested as masculines, but almost exclusively when they refer to male persons. Compare the masculine stems in **-eh₂-* (attested in Greek, Latin, Balto-Slavic, Germanic), some residual *nomina agentis* in **-ti-* (e.g., **dʰuhₓ-ti-* m. 'shaker, agitator' > Vedic *dhū́ti-*, **teh₂ti-* m. 'thief' > Old Church Slavonic *tatъ*, etc.), and many masculine root nouns (e.g., **h₃rḗĝ-* m. 'king', **i̯úg-* m. 'yoke companion', etc.). The obvious inference from this is that most words in these stem classes would initially have been common gender and have had both the abstract and the concrete meaning at the same time. After the rise of a three-way gender distinction, the concrete meaning (often an agent noun) remained masculine, while the abstract meaning would have been assigned feminine gender. It is conceivable that this assignment rule originated in stems in **-eh₂-* because of an analogical association of the nom. sg. in **-eh₂* with the desinences of the pronouns (most notably **séh₂*), which were the nucleus of the feminine agreement system in the scenario outlined in section 8. This analogy led all stems ending in **-eh₂-* to acquire feminine gender except for those for which biological sex forbade such an assignment, i.e., stems in **-eh₂-* denoting male persons (e.g., Latin *scaeua* m. 'lefty'). By semantic association, other abstract noun types of certain stem classes were also assigned to the feminine gender, especially, one could further argue, when such an attribution helped distinguish two meanings (cf. Nussbaum 2014: 304–306). When the abstract noun type was not inherently ambiguous, they remained masculine, such as, for instance, the **tómh₁os* type (cf. Nussbaum 2017) or verbal abstracts in **-tu-*, both of which never (or only secondarily) create agent nouns (cf. Brugmann 1906: 440). For this reason, it is not surprising that stems

béržas m. and Proto-Slavic **bèrza* f., Proto-Germanic **berkōn-* f. 'birch' (pointing to **bʰerhₓĝos* f.).

22 On this question see now Hackstein (2021).

in *-*tu*- are masculine in Vedic (e.g., *gántu*- 'way, course', *tántu*- 'thread, string'[23]), Avestan (e.g., *pərᵊtu-/pəšu*- 'ford', *pitu*- 'food'), Latin (e.g., *gustus* 'taste', *iussus* 'order, command'), Old Irish (e.g., *guth* 'voice', *cruth* 'shape, appearance'), Baltic (e.g., Lithuanian *lietùs* 'rain', Latvian *sātus* 'prosperity'), and Germanic (e.g., **liƀuz* 'bend, joint', **wulƀuz* 'glory'). Since there were no agent nouns in *-*tu*-, there was no reason for disambiguation, and thus no feminine gender was assigned to these verbal abstracts. When we do find feminine abstracts in *-*tu*-, as for instance in Greek (cf. μνηστύς f. 'wooing', δαιτύς f. 'meal', etc.), they are explainable through a secondary implementation of the gender assignment rule "assign feminine gender to verbal abstracts" in the individual branch.

A few examples of root nouns may serve to illustrate the process of disambiguation through gender assignment. On the basis of widespread evidence we can reconstruct a masculine root noun **h₂nér*- 'manly one, man' (Greek ἀνήρ, Vedic *nár*-, etc.). At the same time, however, there is reason to believe that there was also an abstract noun **h₂nér*- 'vigor', inferable from the second member °-ήνωρ in ἀγήνωρ 'having great courage', and from Vedic *nr̥-vánt*- 'strong' < *'possessing, provided with **nr̥*-' (cf. Nussbaum 2022). It seems unsatisfactory to assume that **h₂nér*- 'manly one, man' acquired an abstract meaning 'manliness, vigor' secondarily, and equally counter-intuitive that **h₂nér*- 'manly one, man' should be a recent concretization of an original abstract meaning 'vigor'. More appealing is the idea that **h₂nér*- naturally had both meanings, i.e., of an adjectival abstract and of a concrete referent, something which is far more common cross-linguistically than it may seem at first sight (cf. Greek γλεῦκος n. 'sweetness' and 'sweet wine' < *'something sweet'). Once the feminine gender and its agreement system were established, **h₂nér*- 'vigor', being abstract, was assigned feminine gender,[24] while **h₂nér*- 'manly one, man' remained masculine (supported by the biological sex of its referent).

A further example is **nék̂*-. In the two-gender system, this root noun would have been common gender and united both abstract 'death' and concrete 'dead one' in itself. A differentiation would only have been possible through context, though there are not many contexts in which the ambiguity would actually have made conversations difficult. In the three-gender system, **nék̂*- f. now exclusively meant 'death' (unless referring to a female dead person, in which case **nék̂*-

23 Vedic *vástu*- f. 'brightening, dawning, daybreak' is exceptionally feminine because the underlying concept of 'dawn' (and 'Dawn'), *uṣás*-, is feminine.

24 Since the simplex **h₂nér*- 'vigor' is not attested, we do not know its gender, but compare the adjectival root-noun abstracts **lúk*- f. 'light' (Vedic *rúc*- f., Latin *lūx* f.), **bʰr̥ĝʰ*- f. 'height' (Proto-Germanic **burgz* f. 'stronghold', Old Irish *brí* f. 'hill').

f. 'dead (woman)' would be expected), continued by Latin *nex*, *-cis* f. 'murder', while **neḱ-* m. was reserved for the meaning 'dead one', as attested in Greek νέκες· νεκροί 'corpses' (Hsch.).

A third example is from the root **h₃reĝ-* 'rule'. In Vedic, the root noun *rā́ṭ* is attested both as a feminine 'ruling power' (e.g., *iyáṃ te rā́ṭ* 'this is your strength' *VS*, *ŚB*) as well as a masculine 'king, master' (*RV*). Only in the latter meaning do we find cognates outside India, viz. Latin *rēx*, Old Irish *rí*, Middle Welsh *rhi*, all 'king'. While it is possible that these facts point to a Proto-Indo-European or Core Indo-European root noun **h₃rḗĝs* 'ruling power' that was secondarily concretized to a meaning 'king' (cf. Weiss 2017), it is also conceivable that the noun had both meanings, 'ruling power' and 'ruler', right from the beginning, and that the emergence of the three-gender system helped distinguish the abstract feminine 'ruling power' from the concrete masculine 'ruler'. Of course, a non-abstract feminine **h₃rḗĝs* would still be legitimate when referring to a female ruler, which probably explains Gaulish female personals names in *-rix* such as *Biturix* (cf. Stüber 2007a) and the *rā́ṭ* in RV 5.46.8 that refers to a female goddess.

10 Conclusion

The purpose of this paper has been to give an overview of gender as a grammatical category in the Indo-European languages. Focusing on the distinction between masculine and feminine, its goal has been to illustrate in which areas of the language we can distinguish genders of nouns. I have tried to outline a possible scenario for the emergence of the feminine gender as being the result of and in conjunction with several 'ingredients', and not due to a single factor. Finally, I have presented a survey of the groups of words that acquired or were assigned to the feminine gender, including an outline of how this newly established distinction was exploited to differentiate formerly ambiguous words. In sum, I hope to have shown that grammatical gender is indeed an "endlessly fascinating category" (Corbett 2014: 1) that will probably continue to amaze and puzzle generations of scholars to come.

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Pan, Pūṣan and their matrimonial functions

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This article is a modest contribution to the study of the two gods Pan and Pūṣan, who have long been associated with each other. After touching on the etymological derivation of the two deities' names and the points of comparison between them which have been widely accepted in scholarship so far, I elaborate on the notion of their Indo-European origin by adding a new perspective: marriage, matrimony, and fertility. The role of marriage is attested for Pūṣan in the *Sūryāsūkta*, and this article discusses the possible evidence of the same role for Pan. I summarise by comparing these features, once again confirming the associations of the deities.

Since the end of the 19th century, the two shepherd gods Pan and Pūṣan have been compared to and associated with each other (cf. West 2007: 281). In this article, the hypothesis that they are offshoots of an Indo-European shepherd god is affirmed by adding a new element of comparison. The thesis can be summarised in the words of Calvert Watkins: "In the Arcadian figures of Pan transformed into Hermes = Pūṣan we have to deal with the reflexes of an Indo-European divinity reconstructible both in name and in function" (Watkins 1970: 351). In the following, however, I will not deal with the transformation of Pan into Hermes; only the mythological connection of the two will be mentioned.

A highly specific common feature of Pan and Pūṣan is the etymological relationship of their names, which is generally accepted today. One can discuss whether one wants to trace both back to a paradigm with stem alternation, with nominative **páh₂usōn* (for Greek Πάν) and genitive **puh₂snés* (for Vedic *Pūṣán-*, gen. *Pūṣṇás*) or, as Birgit Olsen (2009: 353) suggests, both to a common base form **puh₂sṓn* or, more precisely, **puh₂sh₃ṓn* (see also Olsen, this volume). It would be important to know the morphological structure and the naming motif of the

1 I want to use this opportunity to thank Birgit Olsen and the team of the conference *Power, Gender, and Mobility. Features of Indo-European Society* for giving me the opportunity to present my results, and to Michael Janda for his guidance and inspiration. I am also very grateful to Patrick Stiles for comments on an earlier draft.

name. Today, one predominantly sees in it a formation with the 'Hoffmann' possessive suffix (nom. sg. *-h₃ōn*) based on an *us*-stem **páh₂-us-*, meaning 'sheltered domain or pasture', which in turn would be derived from the Proto-Indo-European root **peh₂(i̯)-* 'to protect, shepherd, pasture' (LIV²: 460). Thus, for Norbert Oettinger, the predecessor of Pan and Pūṣan was a 'lord of the sheltered domain' or 'of the pasture', which would fit well with the characterization of the two gods (Oettinger 1998: 545–546, 2000: 397; cf. Malzahn 2014: 163).

On the other hand, Michael Janda informs me that in an unpublished discussion piece after Oettinger's lecture in Erlangen (2000), he pointed out that another Proto-Indo-European root, **pi̯eh₂-* 'to beat' (LIV²: 481–482), shows a *u*-extension in the present stem **pi̯éh₂-u-* which, in purely descriptive terms, could correspond to the **-u-* in the designation of our god – especially since the two relevant verbs, Greek παίω and Latin *paviō* (both reflecting **pau̯i̯e/o-*), point to a root extension **peh₂-u-* rather than **pi̯eh₂-u-*. On such *u*-presents, see Jens Elmegård Rasmussen's (2011: 491–497) study. In this case, the Indo-European god would be named after a 'blow' he delivers with his whip, something which is encountered in descriptions of both gods.

1 Comparison of the two deities

In *Zeitschrift für vergleichende Sprachforschung* 42 (1908), Schulze expressed his belief that, since Pan's old name "Παων" had recently been discovered on an inscription from Arcadia (dat. sg. Παονι), Pan and Pūṣan may share their etymological heritage (cf. Schulze 1908: 81).

Based on that remark, a series of comparative studies emerged, not only concerning the names of the two gods, but also their features. The most striking is their connection to goats. Pan's association with these animals is represented in his physical appearance, his two horns and goat-like legs:

> ἀμφί μοι Ἑρμείαο φίλον γόνον ἔννεπε Μοῦσα,
> αἰγιπόδην δικέρωτα φιλόκροτον, ὅς τ᾽ ἀνὰ πίση
> δενδρήεντ᾽ ἄμυδις φοιτᾷ χορο<γ>ηθέσι νύμφαις (*h.Pan.* 1–3)
>
> About Hermes' dear child tell me, Muse,
> the goat-footed, two-horned rowdy, who roams about
> the wooded fields together with the dance-merry nymphs. (West 2003: 198f.)

Pūṣan is connected to goats as well since they are his draft animals, setting him apart from the other gods whose chariots are drawn by horses:

> *asyā́ ū ṣú ṇa úpa sātáye bhuvó 'heḷamāno rarivā́ṁ ajāśva śravasyatām ajāśva*
> *ó ṣú tvā vavṛtīmahi stómebhir dasma sādhúbhiḥ*
> *nahí tvā pūṣann atimánya āghṛ́ṇe ná te sakhyám apahnuvé* (RV 1.138.04)
>
> Will you come near us, for the winning of this ("team" of wealth), you who have goats for horses, who are not wrathful but bestowing—you who have goats for horses, (for the benefit) of those who seek fame? We would turn you hither with praises that achieve their goal, wondrous one, for I do not disdain you, glowing Pūṣan, nor do I spurn your fellowship.[2]

West (2007: 282) adds that on occasion goats were sacrificed to Pūṣan.

The appearances of the two gods are described in similar ways. Pūṣan is said to be bearded (10.26.7), and while other deities like Indra appear to have beards as well, it is a feature he shares with Pan, who is described as being very hairy and bearded immediately after his birth (cf. *h.Pan.* 39).

The cult of Pan spread throughout Greece since the 5th century BCE. Before that he could only be found in Arcadia, an area known for the nature-bound shepherd lifestyle in its arts and literature. An environment fitting for the goat-like god Pan, who "roams the mountains and climbs the peaks to view the flocks" (West 2007: 282). Pūṣan performs a similar function regarding the protection of cattle. In RV 6.54 this feature expands from livestock to wealth in general and to the role of bringing back lost cattle:

> *pūṣā́ gā́ ánv etu naḥ pūṣā́ rakṣatv árvataḥ*
> *pūṣā́ vā́jaṃ sanotu naḥ*
> *pū́ṣann ánu prá gā́ ihi yájamānasya sunvatáḥ*
> *asmā́kaṃ stuvatā́m utá*
> *mā́kir neśan mā́kīṃ riṣan mā́kīṃ sáṃ śāri kévaṭe*
> *áthā́riṣṭābhir ā́ gahi*
> *śṛ́ṇvántam pūṣáṇaṃ vayáṃ íryam ánaṣṭavedasam*
> *íśānaṃ rāyá īmahe*
> *pū́ṣan táva vraté vayáṃ ná riṣyema kádā caná*
> *stotā́ras ta ihá smasi*

2 All English translations of the Rigveda (unless otherwise indicated) are taken from Jamison and Brereton (2014).

pári pūṣā́ parástād dhástaṃ dadhātu dákṣiṇam
púnar no naṣṭám ā́jatu (RV 6.54.5–10)

Let Pūṣan follow after the cows for us; let Pūṣan protect the steeds; let Pūṣan win the prize for us.
Pūṣan, go forth after the cows of him who sacrifices and presses (soma), and of us who praise (you).
Let none disappear; let none be harmed, let none get fractured in a hole. But with unharmed (cows) come here.
Pūṣan who listens, the take-charge one whose possessions never get lost, him holding sway over wealth do we beseech for wealth.
Pūṣan, under your commandment might we never suffer harm.
We here are your praisers.
(Even) from a distance let Pūṣan place his right hand around (us); let him drive our lost (livestock) back to us again.

In contrast to these good-natured spirits, there are some indications of cruel and mischievous character traits. Panic is one of the key features of the Arcadian god, as the word indicates. He scares the shepherds and the livestock with his whiplash while remaining unseen, and creates a dreadful feeling of panic just for fun, which puts men and beasts to rout. Pūṣan does not seem to scare for his own enjoyment, but in RV 6.53.5–8 we see a rather cruel handling of a miser:

pári tr̥ndhi paṇīnā́m ā́rayā hŕ̥dayā kave
áthem asmábhyaṃ randhaya
ví pūṣann ā́rayā tuda paṇér icha hr̥dí priyám
áthem asmábhyaṃ randhaya
ā́ rikha kikirā́ kr̥ṇu paṇīnā́ṃ hŕ̥dayā kave
áthem asmábhyaṃ randhaya
yā́m pūṣan brahmacódanīm ā́rām bíbharṣy āghr̥ṇe
táyā samasya hŕ̥dayam ā́ rikha kikirā́ kr̥ṇu (RV 6.53.5–8)

Bore around the hearts of the niggards with an awl, you poet. And make them subject to us.
Thrust through (them) with an awl, Pūṣan. Seek what is dear to the heart of the niggard. And make them subject to us.
Shred them, make them shrapnel—the hearts of the niggards, you poet. And make them subject to us.

> The awl that you carry, which impels the sacred formulation, o glowing Pūṣan, with it shred the heart of each one, make it shrapnel.

In RV6.58.1, Oettinger (1998: 545) finds another hint to Pūṣan's two-faced character.

> *śukráṃ te anyád yajatáṃ te anyád víṣurūpe áhanī dyaúr ivāsi*
> *víśvā hí māyā́ ávasi svadhāvo bhadrā́ te pūṣann ihá rātír astu*
>
> Light is your one, sacrificial your other form; you are like the sky during the different halves of the day, because you love all phantasms, you self-important one. Your generosity shall be auspicious here, Pūṣan.[3]

These are some key features the two deities share apart from their common name. Now I will focus on their function in the matrimonial sphere.

2 Pūṣan

The hymn RV 10.85, widely known as *Sūryāsūkta*, is an important *sūkta* in the context of marriage and fertility and reveals the role Pūṣan plays in this sphere. First, we get acquainted with the groom, Soma – not the ritual drink, but the god, associated with the moon. The bride is Sūryā, the daughter of the sun. Their wedding "serves as a prototype of human marriage" (Jamison and Brereton 2014: 1519), which gives us hints about the rituals taking place. It is said that the wooers of Sūryā are the Aśvins led by Agni. Jamison and Brereton interpret this role not as a sexual relationship with the bride-to-be, but as representatives of the groom who go to the bride's father to negotiate the marriage. What follows is a long passage about other deities and the Aśvins' chariot that takes the bride to her new house. The narrator of the hymn then declares "the new wife off-limits" (Jamison and Brereton 2014: 1519) and bound to her new husband to have sons and fortune (stanzas 21–26). As we reach the deflowering of the bride, Pūṣan enters the scene to lead her:

> *pūṣā́ tvetó nayatu hastagṛ́hyāśvínā tvā prá vahatāṃ ráthena*
> *gṛhā́n gacha gṛhápatnī yáthā́so vaśínī tváṃ vidátham ā́ vadāsi* (RV 10.85.26)

3 My translation, based on the German translation by Geldner (1951–57).

> Let Pūṣan lead you from here, having taken you by the hand. Let the Aśvins convey you forth in their chariot.
> Go to the house, so that you will be mistress of the house. Exerting your will you will announce the ceremonial distribution.

Her former virginity becomes evident by the red marks of blood on her garment and with this affirmation her husband is bound to her. After that, an interesting passage follows, where the power of the wife is described as witchcraft.

> *nīlalohitám bhavati kr̥tyā́saktír vy àjyate*
> *édhante asyā jñātáyaḥ pátir bandhéṣu badhyate*
> *párā dehi śāmulyàm brahmábhyo ví bhajā vásu*
> *kr̥tyáiṣā́ padvátī bhūtvy ā́ jāyā́ viśate pátim* (RV 10.85.28–29)
>
> It [= bride's garment] becomes dark red. [She = the bride] becomes witchcraft, a noose. She is smeared (with blood).
> Her relatives are elated; her husband is bound in bonds.
> Hand over the stained garment; to the brahmins parcel out the goods.
> She herself has become walking witchcraft: the wife enters her husband.

This passage shows how the sexual act has a mutual influence on the spouses: the groom is usually physically superior, but the bride has witchcraft to "enter her husband".

> *tā́m pūṣañ chivátamām érayasva yásyām bī́jam manuṣyà́ vápanti*
> *yā́ na ūrū́ uśatī́ viśráyāte yásyām uśántaḥ prahárāma śépam* (RV 10.85.37)
>
> Pūṣan, rouse her, most kindly disposed—(she) in whom humans scatter their seed, (she) who will willingly spread apart her thighs for us, (she) in whom we can willingly thrust our penis.

Pūṣan's role is now to arouse the wife so she is willing to receive the semen. Sūryā is said to have four husbands after she was conveyed by Pūṣan. The first is Soma, the second Gandharva, the third Agni, who grants the fourth, human husband a long life and splendour along with the wife. Finally, the *sūkta* concludes with blessings regarding children and prosperity.

In RV 6.55, we find an odd remark about Pūṣan being the lover of his sister and the wooer of his mother. Although incest is not an uncommon theme in mythology, Pūṣan's relationships to his sister and mother nonetheless seem a little misplaced in a *sūkta* that mostly focuses on his goat-drawn chariot and his wealth.

A possible explanation could be that an assumed progeny will be prosperous if the mythological parents stem from the same, glorious family.

éhi vā́ṃ vimuco napād ā́ghṛṇe sáṃ sacāvahai
rathī́r ṛtásya no bhava
rathī́tamaṃ kapardínam ī́śānaṃ rā́dhaso maháḥ
rāyáḥ sákhāyam īmahe
rāyó dhā́rāsy āghṛ́ṇe váso rāśír ajāśva
dhī́vato-dhīvataḥ sákhā
pūṣáṇaṃ nv àjā́śvam úpa stoṣāma vājínam
svásur yó jārá ucyáte
mātúr didhiṣúm abravaṃ svásur jāráḥ śṛ́ṇotu naḥ
bhrā́téndrasya sákhā máma
ā́jā́saḥ pūṣáṇaṃ ráthe niśṛ́mbhā́s té janaśríyam
devā́ṃ vahantu bíbhrataḥ (RV 6.55.1–6)

Come here! Let us two, o child of release, glowing one, together accompany each other. Become the charioteer of truth for us.
The best charioteer, with braided hair, holding sway over great bounty, the companion of wealth we beseech for wealth.
You are a stream of wealth, glowing one, a heap of goods, you with goats as horses, the companion of every visionary.
Pūṣan who has goats for horses let us now approach with praise—the prize-winner, who is said to be the lover of his sister.
The wooer of his mother I have spoken to: let the lover of his sister hear us, brother of Indra, companion to me.
Let the trusty [?] goats draw Pūṣan on his chariot, him who brings (all) to readiness *with his sharp (goad), they bearing the god.

In contrast to the *Sūryāsūkta* (RV 10.85) discussed above, where Pūṣan has the function to arouse her for the husband, he himself is said to be the husband of Sūryā in the following stanza.

pūṣā́ subándhur divá ā́ pṛthivyā́ iḷás pátir maghávā dasmávarcāḥ
yáṃ devā́so ádaduḥ sūryā́yai kā́mena kṛ́táṃ tavásaṃ sváñcam (RV 6.58.4)

Pūṣan has good lineage from Heaven and from Earth, lord of refreshment, bounteous, of wondrous luster,
whom the gods gave to Sūryā, him prompted by desire, powerful, of lovely outlook.

Jamison and Brereton also suggest an allusion to the matrimony of Pūṣan and Sūryā in RV 10.26, another hymn dedicated to Pūṣan.

> *ādhī́ṣamāṇāyāḥ pátiḥ śucā́yāś ca śucásya ca*
> *vāsovāyó 'vīnām ā́ vā́sāṃsi mármṛjat* (RV 10.26.6)
>
> The husband of her who cares [?] [= Sūryā?], (companion) of the gleaming (female [= Dawn?]) and gleaming (male [= Agni, Soma, Sun?]), weaver of garments of sheep [= wool], always rubbing [= cleaning] the garments.

Since most of the hymns do not attest to a matrimonial relationship between Pūṣan and Sūryā it is not very clear how to interpret the last two stanzas. It may be that the passages refer to the connection between these two divinities from 10.85 concerning the wedding night and read into it a legal status, perhaps a metaphorical one.

3 Pan

Pan, too, appears in the context of wedding and matrimony in passages from ancient texts. As we know from the Homeric Hymn to Pan, the god shares his abode with nymphs,[4] though he never has a sexual relation with them. This tension between proximity and distance is reflected in mythology and holds many opportunities for ancient writers.

3.1 Pan in Aristophanes' *Lysistrata*

The power of sexuality is an essential theme in Aristophanes' play *Lysistrata*. The author describes how in the twentieth year of the Peloponnesian War, 411 BCE, the sexual frustration of the warring men was used by the women who were tired of war to put an end to the fighting. The wives, both Athenian and Spartan, withhold their marital duties and through this sexual blackmail eventually manage to restore peace. Even though Pan is only mentioned in a few places, he is the driving force of

4 It may be noted that the Greek word νύμφη has two meanings: on the one hand, it may refer to a human woman before her wedding, that is, a bride; on the other, it is also used to refer to the supernatural semi-divine female figures that the term 'nymph' is commonly associated with today.

the action, symbolised by the door to his grotto that was reproduced on the stage set (cf. Landfester 2019: 32). In his edition of *Lysistrata*, Manfred Landfester (2019: 55) notes that the men "must be made voluptuous and horny as Pan [is]."

The protagonist Lysistrata gives an account of how the cult of the shepherd god was celebrated.

> ἀλλ' εἴ τις ἐς Βακχεῖον αὐτὰς ἐκάλεσεν,
> ἢ 'ς Πανὸς ἢ 'πὶ Κωλιάδ', ἢ 'ς Γενετυλλίδος,
> οὐδ' ἂν διελθεῖν ἦν ἂν ὑπὸ τῶν τυμπάνων.
> νῦν δ' οὐδεμία πάρεστιν ἐνταυθοῖ γυνή,
> πλὴν ἥ γ' ἐμὴ κωμῆτις ἥδ' ἐξέρχεται.
> χαῖρ', ὦ Καλονίκη. (Ar. *Lys.* 1–5)
>
> [Lys:] Now were they summoned to some shrine of Bacchus,
> Pan, Colias, Genetyllis, there had been
> No room to stir, so thick the crowd of timbrels.
> And NOW! – there's not one woman to be seen.
> Stay, here comes one, my neighbour Calonice.
> Good morning, friend. (Rogers 1946: 7)

Describing the empty streets where there is no woman to be found, she creates an image that is so very different from a scene that would occur if there was a feast of Pan or Colias or Genetyllis, the latter two being deities from the reproductive and erotic sphere. Instead of emptiness there would be dazzling music from tambourines and crowded streets appropriate for these gods or goddesses.

3.2 Pan in Menander's *Dyskolos*

Another well-known work of Ancient Greek literature provides us with information about the power attributed to Pan. In Menander's *Dyskolos*, the frame of the story is set by the shepherd god himself when he makes a rich young man, Sostratos, fall in love with a young girl who lives with her misanthrope of a father, a farmer named Knemon. The girl honours the nymphs who live with Pan, in order for him to reward her reverence with the possibility of a rich marriage.

Sostratos' mother, alarmed by a dream in which she saw her son in fetters and commanded by Pan to dig the fields, sacrifices to the god so this situation may turn out for her son's best interests. The ritual is interrupted by the cook who forgets the pot for the sacrifice; he has to ask Knemon for help, which serves

the comic plot. Some fragments of the text show us how a usual ritual would be held. While not engaged in the ritual, a slave named Daos from the household of Knemon's stepson Gorgias (half-brother to the girl Sostratos loves) sees some drunken worshippers of Pan dancing and singing outside the shrine (230–233). Sostratos' mother also orders a hired piper, Parthenis, to play the pipe, because "one should not approach this god in silence" (Balme 2001: 20). Two other servants, the cook Sikon and the slave Getas, carry the necessary items such as the sheep that is to be sacrificed, rugs and cushions, presumably to make the shrine more comfortable (394, 403). To prepare the sacrifice (i.e., to cook the sheep), some other items are needed, such as holy water and a stewing pot. Balme notes that "the sacrificial knife, barley grains for scattering on the victims head" (Balme 2001: 295) can be added to the items mentioned in the play.

As the story continues, the reader learns that both Pan's initial curse to make Sostratos fall in love and the sacrifice in his honour lead the man into matrimony with his chosen one. In addition, Gorgias is elevated to be a man of honour by Sostratos' father and is promised one of his daughters in marriage (843–845).

Both *Lysistrata* and *Dyskolos* provide information about the rituals that were performed in connection with Pan. What is striking here is that integral parts include music, dance, and alcohol, which puts the mostly female participants into a frenzy. As described in *Dyskolos*, the rituals held for Pan may have been linked to fertility and/or the covenant of marriage.

3.3 Pan and the Nymphs

In later ancient sources, Pan himself is the protagonist in carnal episodes with nymphs. However, these do not end in fulfilment, but rather with the ruin of the female part. This is a frequent pattern (cf. Borgeaud 1988: 78–79): Pan is filled with lust and approaches the nymph, but she refuses and flees. Either through Pan's active intervention or by suicide, the nymph dies and is taken up and transformed by Gaia.

In Longos' *Daphnis and Chloe,* the echoing songs of sailors prompt Daphnis to tell Chloe about the myth of the nymph Echo. As the mortal daughter of a nymph and a human, she is brought up by nymphs and muses. She is very talented at singing and playing the syrinx, and proud of her virginity. Pan is furious because he cannot seduce her, but also jealous of her talents. In his anger, he drives some

shepherds and goatherds insane, so they tear Echo into pieces, scattering her still singing body throughout the world. Since then, she imitates all the sounds that she hears, even the whistling Pan.

> ἄρρενας δὲ ἔφευγε πάντας καὶ ἀνθρώπους καὶ θεούς, φιλοῦσα τὴν παρθενίαν. ὁ Πὰν ὀργίζεται τῇ κόρῃ, τῆς μουσικῆς φθονῶν, τοῦ κάλλους μὴ τυχών, καὶ μανίαν ἐμβάλλει τοῖς ποιμέσι καὶ τοῖς αἰπόλοις. οἱ δὲ ὥσπερ κύνες ἢ λύκοι διασπῶσιν αὐτὴν καὶ ῥίπτουσιν εἰς πᾶσαν τὴν γῆν ἔτι ᾄδοντα τὰ μέλη. (Longus 3.23.2–3)
>
> She [Echo] shunned all males, humans and gods alike, liking her maidenhood. Pan grew angry with the girl, being jealous of her music and unsuccessful at winning her beauty. He afflicted the shepherds and goatherds with madness, and they tore her apart like dogs or wolves and scattered her limbs, still singing, over all the earth." (Henderson 2009: 132–133)

Another noteworthy myth is Pan and Pitys. The connection between Pan and a pine tree is already hinted at in *Daphnis and Chloe* where people perform a sacrifice to Pan under a pine tree. The *Geoponica* (11.10) tells us about the love triangle between Pitys, Pan, and Boreas, the North Wind. Because Pitys favours Pan, Boreas is enraged and kills Pitys. Gaia transforms her into a tree, the pine tree. Her relationship to the two divinities, however, remains the same: as a wreath, her branches crown Pan, but when the North Wind Boreas blows around her, she moans and moans (Owens 1806: 74–75).

In contrast to that, Nonnos' *Dionysiaca* tells us that it is again Pan she is fleeing from because of his obtrusive stalking, and that she disappears into the earth and becomes a tree with "honey-sweet tears" (i.e., pine nuts).

> μέλπε Πίτυν φυγόδεμνον, ὀρειάσι σύνδρομον αὔραις,
> Πανὸς ἀλυσκάζουσαν ἀνυμφεύτους ὑμεναίους·
> μέλπε μόρον φθιμένης αὐτόχθονα· μέμφεο γαίῃ.
> καὶ τάχα δακρύσειε γοήμονος ἄλγεα νύμφης
> καὶ μόρον οἰκτείρουσα· σὺ δὲ φρένα τέρπεο σιγῇ
> μυρομένης ὀρόων μελιηδέα δάκρυα κούρης·
> οὐδὲ γέλως πέλε τοῖος, ἐπεὶ πλέον οἴνοπι μορφῇ
> ἱμερταὶ γεγάασιν, ὅτε στενάχουσι γυναῖκες. (Nonn. *D.* 42.259–266)
>
> Yes, and sing also of Pitys who hated marriage, who fled fast as the wind over the mountains to escape the unlawful wooing of Pan, and her fate – how she

> disappeared into the soil herself; put the blame on the Earth! Then she may perhaps lament the sorrows and the fate of the wailing nymph; but you must let your heart rejoice in silence, as you see the honey-sweet tears of the sorrowing maid. No laugh was ever like that, since women become more desirable with that ruddy flush when they mourn. (Rouse 1932: 244–247)

The myth of Pan and the nymph Syrinx is also mentioned in *Daphnis and Chloe*. The nymph Syrinx is a talented singer and is quite merry. One day, Pan takes interest in her, but she refuses his advances. He gets violent and tries to rape the nymph; she flees into the swamp, but Pan follows her. The storyteller, Lamon, Daphnis' foster father, explains how Pan cuts the reeds and, since he cannot find Syrinx, believes that she is dead. From the reeds, Pan creates an instrument, the varying length of the pipes symbolizing the unequal "love" they felt. And so, the syrinx, the characteristic pan-pipes, was born.

> ὁρμᾷ διώκειν ὁ Πὰν ἐς βίαν. ἡ Σῦριγξ ἔφευγε καὶ τὸν Πᾶνα καὶ τὴν βίαν· φεύγουσα κάμνουσα ἐς δόνακας κρύπτεται, εἰς ἕλος ἀφανίζεται. Πὰν τοὺς δόνακας ὀργῇ τεμών τὴν κόρην οὐχ εὑρών τὸ πάθος μαθὼν τὸ ὄργανον νοεῖ [καὶ] τοὺς καλάμους κηρῷ συνδήσας ἀνίσους, καθότι καὶ ὁ ἔρως ἄνισος αὐτοῖς· καὶ ἡ τότε παρθένος καλὴ νῦν ἐστι σῦριγξ μουσική. (Longos 2.34)

> Pan started to chase her with force in mind. Syrinx started running from Pan and his force. When she tired from running, she hid in some reeds and vanished into a marsh. Pan angrily cut away the reeds, could not find the girl, realized what had happened to her, and thought of the instrument after he had bound reeds together with wax, of unequal lengths just as their love had been unequal. And what was once a fair maiden is now a musical syrinx. (Henderson 2009: 98–99)

Syrinx and Pan are also involved in a premarital ritual that Achilles Tatius depicts in *The Adventures of Leucippe and Clitophon*. After Leucippe endures a series of adventures amongst men and pirates, Thersander makes a vile comment about pan-pipes and openly doubts Leucippe's virginity, prompting Clitophon to ask a priest about the background of the remark. The priest now retells the myth of Pan and Syrinx but also mentions a ritual that reveals the status of a girl's virginity. The girl in question is locked into a grotto, dedicated to Pan. If she is still a virgin, a clear tone from the pan-pipe is heard. If not, the pipe remains silent, a groan can be heard, and the people leave the grotto locked for a few days.

ὁρᾷς τουτὶ τὸ ἄλσος τὸ κατόπιν τοῦ νεώ. ἐνθάδε ἐστὶ σπήλαιον ἀπόρρητον γυναιξί, καθαραῖς δὲ εἰσελθούσαις οὐκ ἀπόρρητον παρθένοις· ἀνάκειται δὲ σύριγξ ὀλίγον ἔνδον τῶν τοῦ σπηλαίου θυρῶν. εἰ μὲν οὖν τὸ ὄργανον καὶ παρ' ὑμῖν ἐπιχωριάζει τοῖς Βυζαντίοις, ἴστε ὃ λέγω· εἰ δέ τις ὑμῶν ἧττον ὡμίλησε ταύτῃ τῇ μουσικῇ, φέρε καὶ οἷόν ἐστιν εἴπω, καὶ τὸν ταύτῃ τοῦ Πανὸς πάντα μῦθον. […] ταύτην οὖν τὴν σύριγγά φασιν ἀναθεῖναι μὲν ἐνθάδε τὸν Πᾶνα, περιορίσαι δὲ εἰς σπήλαιον αὐτήν, θαμίζειν τε αὐτοῦ καὶ τῇ σύριγγι συνήθως αὐλεῖν. χρόνῳ δὲ ὕστερον χαρίζεται τὸ χωρίον τῇ Ἀρτέμιδι, συνθήκας ποιησάμενος πρὸς αὐτήν, μηδεμίαν ἐκεῖ καταβαίνειν γυναῖκα. ὅταν οὖν αἰτίαν ἔχῃ τις οὐκ εἶναι παρθένος, προπέμπει μὲν αὐτὴν ὁ δῆμος μέχρι τῶν τοῦ σπηλαίου θυρῶν, δικάζει δὲ ἡ σύριγξ τὴν δίκην. ἡ μὲν γὰρ παῖς εἰσέρχεται κεκοσμημένη στολῇ τῇ νενομισμένῃ, ἄλλος δὲ ἐπικλείει τὰς τοῦ σπηλαίου θύρας. κἂν μὲν ᾖ παρθένος, λιγυρόν τι μέλος ἀκούεται καὶ ἔνθεον, ἤτοι τοῦ τόπου πνεῦμα ἔχοντος μουσικὸν εἰς τὴν σύριγγα τεταμιευμένον, ἢ τάχα καὶ ὁ Πὰν αὐτὸς αὐλεῖ. μετὰ δὲ μικρὸν αὐτόμαται μὲν αἱ θύραι ἀνεῴχθησαν τοῦ σπηλαίου, ἐκφαίνεται δὲ ἡ παρθένος ἐστεφανωμένη τὴν κεφαλὴν πίτυος κόμαις. ἐὰν δὲ ᾖ τὴν παρθενίαν ἐψευσμένη, σιωπᾷ μὲν ἡ σύριγξ, οἰμωγὴ δέ τις ἀντὶ μουσικῆς ἐκ τοῦ σπηλαίου πέμπεται, καὶ εὐθὺς ὁ δῆμος ἀπαλλάττεται καὶ ἀφίησιν ἐν τῷ σπηλαίῳ τὴν γυναῖκα. τρίτῃ δὲ ἡμέρᾳ παρθένος ἱέρεια τοῦ τόπου παρελθοῦσα τὴν μὲν σύριγγα εὑρίσκει χαμαί, τὴν δὲ γυναῖκα οὐδαμοῦ. (Ach.Tat. 8.6)

You see this grove here behind the shrine. Within it is a grotto that may not be entered by any women except clean maids, and a little within its walls there hangs up a pan-pipes. If this instrument is found as a native institution among you of Byzantium, you will be well acquainted with that of which I speak, but if any of you are less familiar with music of this description, allow me to explain it to you and to tell you the whole story of Pan. […] So it is said that Pan there hung up the instrument, shutting it up in a cave, and that it was his custom to resort there often and play on the pipes. Some time after he made a gift of the whole spot to Artemis, making a compact with her that it should be entered by no woman no longer a maid. If therefore any girl is accused of being of undoubtful virginity, she is sent by public decree to the door of the grotto, and the pan-pipes decides the ordeal for her; she goes in, clad in the proper dress, and the doors are closed behind her. If she is in reality a virgin, a clear and divine note is heard, either because there is some breeze in the place which enters the pipes and makes a musical sound, or possibly because it is Pan himself that is piping; and after a short time the doors of the grotto open of their own accord, and out comes the virgin with a wreath of

> the foliage of the pine upon her head. But if she has lied about her virginity, the pan-pipes is silent, and a groan comes forth from the cave instead of a musical sound; the people go away and leave the woman inside. On the third day after, the virgin priestess of the spot comes and finds the pan-pipes lying on the ground, but there is no trace of the woman." (Gaselee 1917: 402–405)

This ritual, transmitted through literature from the 2nd century CE, reveals the role that Pan plays in the sphere of chastity and matrimony, but also shows his savage nature in dealing with intimate relations.

4 Marriage and fertility

Burkert (1985: 172) writes that "Pan embodies the uncivilized power of procreation which nevertheless remains indispensable and fascinating for civilized life". As we saw in the preceding section, from the moment the cult of Pan spread throughout Greece,[5] he is mentioned in several literary sources and myths within the sphere of sexuality and matrimony. He is associated with nymphs but, as we know from the stories pertaining to them and from the Homeric Hymn to Pan, he does not have a sexual relationship with them and may thus also be characterised as frustrated. However, when he gets the chance, he becomes uncontrollably violent and tries to rape the nymphs – what Euripides calls Πανὸς γάμος 'Panic marriage' (i.e., rape). It is impossible for him to enter the bond of marriage and yet, as shown immediately below, he is included and honoured in wedding rituals. In modern Western societies, marriage as a civilised form of sexuality is ideologically opposed to both rape and premarital sex. In ancient Indo-European societies on the other hand, it was not uncommon for marriage to go hand in hand with violence, such as abduction and forced marriage (cf. for instance the Rape of the Sabine Women). As such, it would not be unnatural for Pan to be part of the matrimonial sphere as an embodiment of uncivilised procreative power.

A good piece of evidence for Pan playing a leading role in the marriage ritual is a bowl that was discussed in detail by Alexander Stuart Murray (1902). It is a Megarean bowl, found in Thebes and presumably dating from the 3rd to 1st century BCE (the British Museum dates its production to between 225 and 175 BCE).[6]

5 As West (2007: 281) suggests, Pan first was known only in Arcadia and became prominent in other areas in the fifth century BCE.

6 See https://www.britishmuseum.org/collection/object/G_1897-0317-3 (27 February 2023).

It shows a scene from the Persephone myth: the daughter of Demeter is abducted by Hades on a chariot, followed by Demeter, Athene, Hecate, and Artemis. The chariot is headed towards the left side of the bowl, into the underworld. The entrance to the underworld is symbolised by a stele inscribed ΕΥΣΕΒΩΣ (cf. τῶν εὐσεβῶν λειμῶνας 'the Fields of the Righteous' *Orph. Fr.* 153 Abel). Hermes is in front of the chariot, between it and the stele, while an odd boyish figure is hiding in reeds on the other side of the stele. Murray interprets this figure as follows:

> The arrival of Persephonè in Hades was associated with the *Theogamia,* and bearing this in mind we at once recognize the boy amid the reeds of Acheron playing on his flutes as a type of the boy who led the way in marriage processions […]. But this boy among the reeds, though dressed in the ordinary manner, has two small horns on his forehead. He is therefore a young Pan. Reeds are a natural enough environment for Pan and from his association with nymphs it was perhaps an easy step to connect him with the marriage of Persephonè. (Murray 1902: 4)

So, does this depiction prove a function of Pan as leading the bride? Murray's description might lead one to answer with a tentative yes, but a few factors give one pause, such as Pan's position behind the stele (i.e., already in the underworld?) and not in front of the chariot (quasi 'leading' it), as well as the lack of more specific features of the shepherd god. It remains questionable whether one can really interpret the figure as Pan leading the bride (i.e., Persephone). Perhaps his position underlines the direction of the procession and goat horns and flutes were iconic enough to make him immediately identifiable. But of course, these are mere presumptions. A more certain hint are the reeds Pan is surrounded by that refer to the story of Syrinx mentioned above.[7]

To reinforce these presumptions, I am going to compare Pan and Pūṣan in terms of their function in human sexuality and marriage. Both have the ability to arouse a woman; for Pūṣan, this is made clear in the *Sūryāsūkta*, whereas we learn in Aristophanes' *Lysistrata* about the ritual dedicated to Pan in which the women reach an orgiastic state. Pūṣan's role as the leader of the bride is touched upon in the wedding song. While this explicit mediating function is elusive for Pan, he very often appears with nymphs, and it is precisely these who, according to their designation,

7 The British Museum also calls this figure between the reeds Pan.

are the 'brides' (νύμφαι) elevated into the semi-divine. Moreover, in Menander's *Dyskolos*, it is to Pan that a sacrifice is made for the success of marriage.

If we now return to Murray's description of the bowl, Pan is part of the wedding procession, but in contrast to the goddesses following the chariot, he is in front of it, already in the underworld, their destination. The question, then, is: how can Pan represent on the one hand unbridled and sometimes crude fervour, and on the other civilised sexuality and marriage, leading the bride into matrimony? Borgeaud summarises this apparent contradiction and the function of Pan in the wedding ritual as follows:

> But the meaning of his detachment from the institution of marriage becomes clear only when we see that as patron of everything improper to marriage […], he prepares, introduces, and initiates into marriage. The outcast is from this point of view a founder. One could say much the same of Artemis and the nymphs, although oppositely. Furthermore, just as Artemis, that fierce virgin, is nonetheless also goddess of childbirth, so Pan appears simultaneously distant from the proper relation between the sexes and, inasmuch as he symbolizes sexual desire, present at the very heart of that relation. To sacrifice to Pan means to make love; although sanctuaries generally admit only chaste behaviour, his grotto makes a place for furtive unions and welcomes lovers. (Borgeaud 1988: 155–156)

5 Conclusion

As we have seen, there are many parallels between the two shepherd gods Pan and Pūṣan. There is a great deal of overlap not only in their attributes and functions, but also in the etymology of their names.

In this contribution, I have tried to show that, in addition to the already well-established similarities between them, their associations with sexual fertility and their roles in wedding rituals also show a likeness. Since the importance of the Vedic god Pūṣan for the marriage ceremony is established in the *Sūryāsūkta* (RV 10.85), the focus of this paper was on finding possible corresponding functions of the Greek god Pan. Numerous literary and cultic connections between Pan and the ritual of marriage show that similarities to the Vedic god can certainly be found. Since these do not stem from later cultural diffusion, it supports the hypothesis that both Pan and Pūṣan must have a common predecessor, the Indo-European shepherd god **páh₂usō(n)*.

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The Charioteer Athena as goddess of warriors

Constellations and their role in the prehistory of Greek religion

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> With Skjærvø's comparison of the specific Homeric situation of Athena and Diomedes at the chariot with that of Zarathustra and Aṣi in the Avesta, Windfuhr recognized in Aṣi the mythical transformation of the celestial Charioteer. And so a new question arises: does Athena also have something to do with Auriga? In fact, the war goddess wears a goat skin, the famous Aegis, around her shoulders, reminiscent of Capella, the brightest star of Auriga. This is not the only evidence in favor of an origin of Athena in the night sky.[1]

1 Athena on the move

Athena, the powerful city goddess of Athens, is the patroness of inventions, crafts and arts. As the goddess of war and warriors, she differs from the bloodthirsty, clumsy Ares in her cool strategy. But it is not only intellectually that she is a very agile goddess. The myth shows her roaring down from Olympus to the battlefield before Troy on her chariot, and in the cult we also see her on the move on her vehicle. How could a goddess enter this domain reserved for men?

2 Goddess and hero at the chariot

In an essay from 1997, published in 2000, Prods Oktor Skjærvø pointed out the similarity between three mythical motif complexes from Homeric Greece, the Iran of the *Avesta* and the India of the *Mahābhārata*. I will confine myself in the following to the first two cultures mentioned. The scene takes place on or near a chariot: a goddess meets a hero, praises his beauty and encourages him with her touch. In the fifth book of the Iliad, Athena goes to the battlefield at Troy and

1 I warmly thank Birgit Olsen for the invitation to contribute to this volume.

meets the wounded Diomedes, who has just pulled an arrow out of his shoulder (Il. 5.107f., 5.114f., 5.121–126):[2]

[…] πρόσθ᾽ ἵπποιιν καὶ ὄχεσφιν 107
ἔστη […]
δὴ τότ᾽ ἔπειτ᾽ ἠρᾶτο βοὴν ἀγαθὸς Διομήδης· 114
κλῦθί μευ, αἰγιόχοιο Διὸς τέκος, Ἀτρυτώνη […]
ὣς ἔφατ᾽ εὐχόμενος, τοῦ δ᾽ ἔκλυε Παλλὰς Ἀθήνη, 121
γυῖα δ᾽ ἔθηκεν ἐλαφρά, πόδας καὶ χεῖρας ὕπερθεν·
ἀγχοῦ δ᾽ ἱσταμένη ἔπεα πτερόεντα προσηύδα·
θαρσῶν νῦν, Διόμηδες, ἐπὶ Τρώεσσι μάχεσθαι·
ἐν γάρ τοι στήθεσσι μένος πατρώιον ἧκα
ἄτρομον, οἷον ἔχεσκε σακέσπαλος ἱππότα Τυδεύς. (Ludwich 1995: I 190f.)

[…] he stood before the horses and the chariot […] 107
And then Diomedes, good at the war-cry, made a prayer: 114
"Hear me, child of Zeus who carries the aegis, unwearied one! […]"
Thus he spoke in prayer, and Pallas Athene heard him, 121
and made his limbs light, his feet and his hands above;
and she stood near him and spoke to him winged words:
"Be daring now, Diomedes, to fight against the Trojans,
for in thy breast I have put the impetuosity of thy father,
the dauntless might, such as the horseman Tydeus, wielder of the shield, used to have." (Skjærvø 2000: 176)

In the ancient Iranian tradition, the Young Avestan *Yašt* 17 is addressed to the goddess Aši,[3] whose name means 'grant, reward'. She asks Zarathustra, here clearly a mythical figure, for his name in *Yt.* 17.17:

paiti.staiiata ⁺raθaiia[4]
aṣiš vaŋᵛhi yā bərəzaiti
uiti vacābiš aojana
kō ahi yō mąm zbaiiehi. (Hintze 2000: 310)

Good Aṣi the tall stood at/on the chariot [or: as charioteer?],

2 Here and in following quotes, I leave out emphases in bold in Skjærvø's text.
3 On Aṣi in general, see Schlerath & Skjærvø (1987).
4 Thus Hintze (2000: 310, with note 187), following the manuscripts K12 and Ml2. Geldner (1889: 234) and Skjærvø (2000: 176) prefer the emendation *⁺raiθiia*.

speaking thus with words:
Who are you who invoke me? (Skjærvø 2000: 176)

After Zarathustra has made himself known, the following happens (*Yt.* 17.22):

ā dim usca pairi.marəzaṭ
hāuuōiia bāzuuō dašinaca
dašina bāzuuō hāuuaiiaca
uiti vacəbiš aojana
srīrō ahi Zaraθuštra
hukərətō ahi Spitama
huuascuuō darəyō.bāzāuš
dātəm tē tanuiie xᵛarənō
urunaēca darəyəm huuaŋhəm
yaθa imaṭ yaṭ tē frāuuaocim.

She stroked him above all around
with the left hand and the right,
with the right hand and the left
speaking thus with words:
You are beautiful, Zarathustra,
you are well-made, Spitama,
you have good calves, long arms.
In your body has been placed glory
and long well-being for (your) soul,
just as I foretold you. (Skjærvø 2000: 176)

Skjærvø (2000: 175) finds five parallels in these two passages:

1 Reference to chariot
2 Proximity of the goddess
3 Stroking of the hero
4 Address of the hero by name
5 Praise of the beauty and strength of the hero

Two caveats are in order. Athena does not touch Diomedes, and Skjærvø (2000: 177) must refer to other actors and passages for this motif in the Iliad, nor does Athena explicitly praise Diomedes' beauty. She does, however, state that she has "now" put μένος 'impetuosity' (Il. 5.125) into his chest.

For Skjærvø, the similarities of these motifs in their combination were so characteristic that he considered them to be inherited from the common Indo-European past of both cultures (2000: 175). However, a historical-genetic connection between Athena and Aṣi did not occur to him.

3 Haoma, Zarathustra and the celestial Charioteer

A few years later, Gernot Windfuhr took up Skjærvø's hypothesis and added it to the picture he had gained of Zarathustra as the mythical priest and, in a certain sense, successor of Haoma, the Avestan god of intoxication. In 2003, Windfuhr published a spectacular observation: like his Vedic brother Soma, Haoma is simultaneously the plant and the sap derived from it; he is the sacrificer, the sacrifice and the divine recipient of the sacrifice. And just as Soma is also in the sky, where he is "set in the lap of these heavenly bodies" according to the *Rigveda* (10.85.2), Haoma wears a star-adorned belt and resides on mountain tops (*Y.* 9.26):

> *frā tē mazdå baraṯ pauruuanīm aiβiiåŋhanəm stəhrpaēsaŋhəm mańiiu.tāštəm vaŋᵛhīm daēnąm māzdaiiasnīm.*
> *āaṯ aŋ́he ahi aiβiiāstō baršnuš paiti gairinąm drājaŋ́he aiβiδāitīšca *grauuūsca mąθrahe.*
>
> Mazda invested you with the (?)[5] girdle, the star-adorned, good Mazdayasnian religion created by the spirit,
> and you have been girded with this on the mountain tops to hold the bridle and sticks of the holy word. (Josephson 1997: 70; cf. Windfuhr 2003: 472)

In the *Yašt* dedicated to him, Haoma receives a strange offering (*Y.* 11.4, the sacrificial share also in 11.5):

> *us mē pita haomāi draonō frārənaoṯ ahurō mazdå aṣauua*
> *haŋᵛharəne maṯ hizuuō hōiiūmca dōiθrəm.*
>
> Righteous Ahura Mazda, [my] father, bestowed upon me, Haoma, a share, both jaws with the tongue and the left eye. (Josephson 1997: 113; cf. Windfuhr 2003: 471)

5 Windfuhr (2003: 472, note 1) understands "*parwanya-*" (today rather *pauruuanīm*), as 'knotted'; conversely, Cantera (2019) understands it as 'made of tufts of wool'.

Windfuhr commented on the Haoma sacrifice (2003: 471):

> This seemingly disjunct specification, two jaws and left eye, loses its enigmatic nature when sought in the sky: It is the head of Taurus. Specifically, there is a well-known celestial Jaw, which is the V-shaped outline of the Hyades. Inside it is a well-known left eye, which is the *lucida* of the celestial Bull, α Tauri, Aldebaran.

Opposite this "Bull" must then be his divine sacrificer. Windfuhr achieves a brilliant identification (2003: 472, excluding footnotes):

> The specifications "star-adorned" and "mountain tops" support the correlation of the sacrificial animal with a celestial constellation. In fact, Taurus stands right in front of the best-known girdle-wearer in the sky, the mighty Orion. To note, Orion does not only wear his own girdle, but also touches the supreme cosmic girdle, which is the Milky Way.
>
> The brilliant, and girdled, constellation Orion, then, would appear to be here identified with the radiant apparition of the divine *Hauma*, facing the head of his sacrificial Bull. The fact that the Avesta seems not to name that most majestic constellation in the sky at all has always been puzzling. The reason appears to be the narrative genre, and the adherence in those texts to astral myths where one and the same constellation may be part of a number of overtly different myths.

The three shining stars of the Orion belt can be reflected in this mythical image. As we have seen, Windfuhr also points to an alternative: the Milky Way could also be meant, since it touches the constellation Orion.

As Windfuhr (2003: 473) puts it, "[t]he divine Hauma-Orion was thus the first *hauma*-priest". In his mythical succession we find four fathers who are awarded for their *Haoma*-service with famous sons, the last of which is Zarathustra. In a later study, Windfuhr (2010)[6] asks whether the two personal relationships – between Zarathustra and Haoma in personal succession on the one hand, and between Zarathustra and Aṣi in their meeting at the chariot on the other – can be traced back to a concrete phenomenon of nature. Aṣi's chariot, on which the goddess meets the Haoma priest Zarathustra, and on which she also travels in other

6 I am very indebted to Ramiyar Karanjia for a copy (unpaginated) of this important article.

ways, plays a decisive role; for example, she steers the chariot for her brother, the famous Miθra, in other texts:

> There is only one well-known 'Charioteer' in the sky, and that is the constellation Auriga. Auriga is astronomically located above Orion, and both are close by Taurus. To note, the constellation Taurus is one of the prominent 12 zodiacal constellations defined by the circle of the ecliptic. Therefore, Aṣi must correlate with the constellation Auriga, which is located above and north of Orion/Haoma-Priest. […] Recognizing the relative positions of the three constellations, it becomes apparent that just as Auriga is above Orion, so Aṣi is above the celestial Haoma-Priest. Thus is explained the hitherto enigmatic and puzzling statement in *Yt*.17.22 that Aṣi stroked Zarathushtra from 'above', thus correlating Haoma-Priest and Zarathushtra. (Windfuhr 2010)

Even before these observations, the Iran of the Avesta was considered a culture whose pantheon – unlike those of the other Indo-Europeans – included astral deities in an explicit way. We need only recall the extensive hymn to the star Tištriia (Yašt 8, cf. Panaino 1990/1995), i.e., Sirius in the Canis Major constellation; or the shorter one to the star Vanaṇt (Yašt 21), i.e., Vega in the Lyra constellation.

Skjærvø assumed that the scene between Aṣi and Zarathustra contained a small complex of motifs that reached back over a long tradition to the Indo-Europeans. This seems to be confirmed by Windfuhr's explanation since reference is made to a basic, unchanging conception of heaven, the neighborhood of the Charioteer and Orion, the most anthropomorphic figure in the sky. We can now ask: what about Athena and Diomedes?

4 The charioteer Athena

It would be interesting to take a closer look at the fifth book of the *Iliad*, where the great deeds of Diomedes are praised. Over the course of the action, the chariot comes more and more to the fore. Athena and Hera travel on a chariot adorned with gold towards Troy (Il. 5.720–779), where Athena herself climbs into Diomedes' chariot after she has rudely pushed down the charioteer Sthenelos (5.835f.). With Athena's help, Diomedes even manages to attack and wound the war god Ares himself (5.841–867). This is a rare case in which a combat is actually fought from the chariot in the Iliad.

As Walter Burkert recognized (1970: 361f. with note 23 = 1990: 84 with note 23), the epic chariot ride of goddess and hero seems to mirror an older ritual. In Argos in the Peloponnese, the priest of Athena rode on a chariot to a purification ritual together with the cult image of Athena, the Palladion. The etiological narrative recalls a priest, Eumedes, who had once stolen Athena's cult image and driven it away. Burkert points out the similarity of the names: in Troy, Athena rides with Διο-μήδης; in Argos, with Εὐ-μήδης. So, it is possible that Homer or one of his predecessors is not following a momentary poetic idea, but is either poetically transferring a ritual or the event underlying the ritual.

The work of Skjærvø and Windfuhr develops a line of argumentation that we can now pursue without bias. What do we gain if we take the parallel of Aṣi as our basis and see Athena as a divine charioteer, a mythical transformation of *Auriga*/*Heniochos*, the celestial Charioteer? I will limit myself to four points.[7]

4.1 The Aegis

Seeing Athena as a celestial Charioteer may provide us with an explanation for the strange Aegis that she wears over her shoulder.[8] In Homer, the Aegis appears twelve times (for attestations, see van der Valk 1955). The word formation suggests that it is a goatskin: αἰγίς to αἴξ 'goat' as νεβρίς 'fawnskin' to νεβρός 'fawn' – and accordingly, it is described as having tassels. But it also has miraculous properties: it is described as being ageless and immortal (Il. 2.447) and made of gold (Il. 24.21). As a kind of shield, it protects the corpse of Hector (Il. 24.18–21), but mostly it arouses terror among the people when lifted or shaken by Athena (Od. 22.297+), Zeus (Il. 4.166f.+) or Apollo (Il. 15.321+). Zeus alone bears the epithet αἰγίοχος, a compound whose second element probably belongs to the root for 'move' (⁽*⁾ϝεχ-, PIE **u̯eĝʰ-*, *LIV* 661f.) rather than 'hold' (ἔχ-, PIE **seĝʰ-*, *LIV* 515f.), cf. *LfgrE* (I: 251–253) and Janda (2014a: 467f. with literature).

Besides Zeus, the Aegis is worn by his daughter Athena, hanging on her shoulder, and by Apollo. On the upper arm of the celestial charioteer *Auriga* shines a star which the astronomy of the classical cultures calls Αἴξ or *Capella*, the Goat (cf. Scherer 1953: 124f.). Capella is the sixth-brightest star in the night

7 A more detailed treatment will be provided in Janda (in prep. 2).

8 On the Aigis, see Burkert (2011: 219), Parker (1996), von Geisau (1979), Stengel (1893), Roscher (1886), Janda (2014a: 460–476, outdated), and Watkins (2000 and 2002: 169–176) who considers the concept a loan from Anatolia.

sky, the third-brightest in the northern sky. Interpreting Athena as a female charioteer in the sky provides an immediate explanation for the Aegis. Auriga/Heniochos also carries two little bucks on his hand, as the illustration from the famous Leiden Codex (*Leiden Aratea*) shows (Hübner 2010: I, plate 1). We owe to Jan Bremmer (1996) an accurate summary of the myth of the goat or nymph Amaltheia, whose horn of plenty was also found in the sky here in this constellation.[9]

4.2 Athena's birth

Athena has no mother. The myth describes how she sprang from the head of Zeus in full armour. An explanation for this motif presents itself when we understand Ζεύς in its etymological meaning 'heaven' (PIE **Dyḗus*, Lat. *Iū-piter*, Ved. *Dyáuṣ*): Athena emerges from the 'Head of Heaven'. In fact, there is some evidence that the Indo-Europeans knew of a constellation of this name, even if we cannot reconstruct its exact designation for the time being. This constellation lies in the immediate vicinity of the Charioteer, so that the celestial succession could be translated into a genealogical one.

In ancient India the three stars that make up Orion's three head stars (λ, φ¹, φ² *Orionis*) were called *mṛga-śiras-* or *mṛga-śīrṣan-* 'Head of the Beast' (cf. Scherer 1953: 155). In Greece, Joseph Fontenrose, in his book *Orion: The Myth of the Hunter and the Huntress* (1981) has pointed to the close similarity of the Boeotian hunter Orion and Kephalos, who are both described as being lovers of Eos in different myths (1981: 86–111). Κέφαλος means 'one who has a (special) head',[10] and if we see him as representing the same mythological figure as Orion, he may be identified with Orion's head, and his name forms a neat parallel to the Indian 'Head of the Beast'.

It thus seems reasonable to posit that the Indo-Europeans knew of a constellation they saw as a 'Head' in the night sky, and that it was from this 'Head of Heaven' that the Charioteer Athena was born.

9 More will be said about these motifs in Janda (in prep. 2 and 4).

10 See Höfler (2020) for more on possessive derivatives of the type 'having a (special) body part'.

4.3 Athena as goddess of war

In an important article, Georges-Jean Pinault (2006) has shown that the Indo-European root *h_1ar- was used in the meaning 'to attain, acquire, win' precisely in the sphere of competition. I myself added, among other words, Hitt. *arnuwala-* to the family of words derived from this root (2014b). *Arnuwala-* is the 'prisoner of war' who is 'acquired' and deported from his homeland. I further suggest that two more nouns also belong here (cf. Janda in prep. 2): the Greek *s*-stem ἄρος meaning 'harm, damage' in Hesychius and Hom. ἀρή 'harm, mischief, ruin'. In the latter case, things that were 'acquired' or 'won' in war are seen from the point of view of the defeated. The formal and etymological problems surrounding the name of Ares, the god of war, disappear when one no longer tries to derive all name forms from a single stem. I suggest that from the *s*-stem ἄρος the name Ἄρης was formed by internal derivation (cf. ψεῦδος 'lie': ψευδής 'with a lie; lying, false'): Ares is a god 'who has the booty (and carries it away)'. From ἀρή is formed Ἀρεύς in the same meaning. Thus, when we encounter a *Hermahās Areiās* (*e-ma-a_2 a-re-ja*) in Mycenaean (see most recently Guilleux 2012 with literature), this is perhaps not a Hermes somehow belonging to Ares, but rather Hermes in his familiar role as god of thieves, a Hermes 'of carrying away'.

It has long been known that Aṣi, the Young Avestan goddess who meets Zarathustra at the chariot and strengthens him by her touch, owes her name to this root. For Almut Hintze, she is the personified 'grant' or 'reward' (2000: 74f.). The name of the common Indo-European predecessor of Aṣi can now be traced back to *$h_1árti$- (with *h_1), and it is possible that this is the same word as the epithet Ἀρεία borne by Athena in Athens and elsewhere (cf. Burkert 2011: 259, 378). As an epithet of Athena, it probably refers not so much to her opponent in Homer, the war god Ares, as to the appellative on which his name is based.

4.4 The celestial "Flower"

India has not played much of a role in my discussion so far, and we are missing a goddess corresponding to Aṣi by name. Windfuhr (2010) implicitly assumes that Aṣi is a manifestation of another goddess who also comes along on the chariot and brings abundance to people, namely Ved. *Púrandhi-*, OAv. *Parəṇdi-* and YAv. *Pārəṇdi-*. Her name has recently been explained by Pinault (2016), who brilliantly modified other existing interpretations (cf. *EWA* II 145f. and Janda 2020: 70) and assumed a verbal compound: Indo-Iranian *$pr̥$-*Handhi-* consists of a first element

reflecting the root *par-* 'to go over, cross over' and an *i*-stem related to Ved. *ándhas-* 'flower, soma-plant' as its second element. The meaning of this compound was 'carrying the flourishing across', later developed into 'promoter of flourishing, plenitude, liberality', which Pinault interprets as the role of this goddess in conveying the intoxicating potion, the 'flower' par excellence.

Now, the Greek cognate of *ándhas-* is ἄνθος, and this noun is the derivational basis of a number of place names like Ἀνθεδών and also Ἀνθάνα in the region of Thyreatis in the Peloponnese. As early as 1846 Christian August Lobeck (300, fn. 21) assumed: "Nomina urbium Ἀθῆναι et Ἀνθήνη fortasse idem significant, Florentiam vel Floram" 'The names of the cities Ἀθῆναι and Ἀνθήνη perhaps mean the same thing, Florentia or Flora'. I think Lobeck is right. The first nasal in Ἀνθᾰ́νᾱ may have disappeared by dissimilation, yielding Ἀθᾰ́νᾱ (> Ἀθήνη). This dissimilation may actually be attested in the writings of Pausanias, where the Anthana in Thyreatis mentioned above is consistently called 'Athana' – unless it is merely the name of the famous capital of Attica exerting its influence.

The base noun ἄνθη is attested in Plato in the meaning 'full bloom, flower' (*Phaidr*. 230b). The name of the goddess belongs here, too: the derivative ἄνθη → Ἀ(ν)θή-νη compares with ἀκμή '(highest) point, vigour' → ἀκμη-νός 'full-grown'. The charioteer Ἀθήνη possesses 'full bloom, flower' or (in a metaphorical use parallel to that predominant for ἄνθος already in Homer) 'the finest' and brings it to men. Frisk (*GEW* I 28) and Chantraine (*DELG* 27f.) omit the significant fact that Homer refers to the goddess 250 times by the name Ἀθήνη,[11] which therefore cannot be derived from the name of the city.

It is thus possible that the Indo-European goddess passed on the – real and onomastic – possession of **h₂andʰ-*, the 'flourishing' or 'finest', to Purandhi, Parəṇḍi/Pārəṇḍi and further perhaps to Aṣi (which we do not know) on the one hand, and to Athena on the other.

The name of the city of Athens – Ἀθήνη, also in the plural Ἀθῆναι – may be based either independently on the same possessive formation *ἀ(ν)θᾱ-νᾱ '(the area) provided with blossom' or – as a collective – on a tribal designation *Ἀ(ν)θᾱ-ν-ες, which referred to people who inhabited this region rich in flowers (cf. Κρῆτες → Κρήτ-ᾱ).

11 Overlooked by Leukart (1980: 246, note 27) and Schaffner (2014: 371).

5 Intoxication in the cosmos: Diomedes and Dionysos

Finally, I would like to discuss the figure of Diomedes[12] who, supported by Athena, mows down the Trojans in the Iliad. As mentioned earlier, Diomedes possibly has a predecessor, or at least an alter ego, in cult: the Argive priest of Athena called Eumedes. It has always been surprising that Agamemnon – the powerful king of Mycenae, rich in gold – has an independent king, Diomedes, sitting next to him in Argos, only fourteen kilometres away – though of course only a problem if one believes the Iliad to be an accurate historical source.

In the two compound names Διο-μήδης and Εὐ-μήδης the first elements are immediately clear: Ζεύς, gen. Διός 'heaven' and εὐ- 'good'. The second element, which is common to both, is less clear. Since Homer, Greek has known the *s*-stem μῆδος 'intention, plan', always used in the plural μήδεα (related to Armenian *mit-k'* 'mind, intellect, idea', cf. Olsen 1999: 69), and next to it the homonym μῆδος 'genitals', again always found in the plural form μήδεα, with the short-vowel side forms μέδεα and, less clear, μέζεα.

Modern research sees Diomedes as a hero who 'has the plan of Zeus' (e.g., Kanavou 2015: 48–50). However, a consideration of all epic attestations of μῆδος 'intention, plan' and μῆδος 'genitals', as well as the perhaps related verb μέδομαι with its formulaic participle μέδοντες and possible cognates in the *Rigveda*, points to the following: the conventional etymological connection with the root for 'measure', PIE **med*-, Lat. *modus* etc. (*LIV* 423), and partly also the determination of the synchronic meaning, must be abandoned. Instead, the Greek words belong with Ved. *mad-* 'intoxicate, delight, rejoice' (*EWA* II 299f.), from a previously unrecognised Indo-European root **med-* 'enjoy oneself' (for details, see Janda in prep. 3).

We thus start from 'feel pleasure (at), enjoy, become intoxicated'. **Mēdos*-,[13] originally a verbal noun 'pleasure, enjoyment', becomes concrete as a *nomen loci*: 'place where one feels pleasure; genitals'. In parallel, 'feel pleasure at, enjoy, become intoxicated with' also means 'desire to do something' (cf. NHG *Lust haben*), whence μῆδος in the sense 'lust, intention, plan'. A deeper discussion of the verbal forms here would be excessive, but Figure 1 shows an overview of the fundamental development.

12 On Diomedes, see Gantz (1996: I 133f., 333, 335; II 524, 581, 604–607, 612f., 616f., 619–622, 636f., 640, 642–645, 649f., 654, 658, 662f., 697, 699f.) and B. Mader, *LfgrE* II 309f.

13 For an explanation of the lengthened grade within the framework of the traditional etymological connections, see Höfler (2014: 299–305).

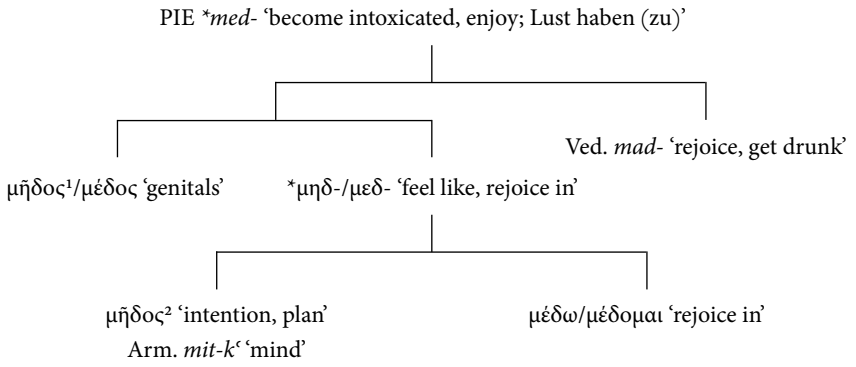
PIE *med- 'become intoxicated, enjoy; Lust haben (zu)'
Ved. mad- 'rejoice, get drunk'
μῆδος¹/μέδος 'genitals'
*μηδ-/μεδ- 'feel like, rejoice in'
μῆδος² 'intention, plan'
Arm. mit-k' 'mind'
μέδω/μέδομαι 'rejoice in'

FIGURE 1. Overview of the development of the root **med-* 'become intoxicated, enjoy'.

Confirmation is provided, as is so often the case, by collocations and compounds common to Greek and Vedic. For example, the Vedic syntagm *náro … mádanti* (RV 1.154.4+) 'men rejoice' corresponds to the famous Greek woman's name Ἀνδρομέδα, and the expression *śrávo mádanti* 'rejoice in fame' (RV 5.52.1) to Κλεομέδων.

Thus, the meaning of the second members of the names Διο-μήδης and Εὐ-μήδης should be arranged on a semantic scale ranging from 'pleasure' to 'intoxication' to '*Lust haben zu*, planning, intending'. It now becomes apparent how fruitful it is to follow the path pioneered by Skjærvø and Windfuhr: Διομήδης 'has the intoxication of heaven' and thus, and in his relationship to Athena, corresponds exactly to the celestial Haoma with his neighbor Aṣi. It is no coincidence that the myth of the Boeotian hunter Orion also tells how he becomes addicted to wine (see for example Renaud 2004: 137f.).

I have not yet named perhaps the greatest of all of Orion's avatars, Dionysos. In relation to Dionysos in particular, it becomes apparent that, in addition to carefully analysing sources, Indo-European studies must reckon with an overlay of astral motifs and names, maintaining a cross-cultural perspective and keeping in mind that epithets can lead to independent figures. A full treatment of the complex and intertwined material would be beyond the scope of this chapter, but I will give a few suggestive connections:

Dionysos is the god of wine because he eternally follows the spherical constellation of the Pleiades, which the Greeks also appropriately named βότρυς 'grape' (cf. Scherer 1953: 144f.).[14] Paretymologically named 'doves' (πέλειαι), the

14 On the prehistorical origin of Dionysos, see Janda (2022a, esp. p. 45 on βότρυς).

Pleiades bring ambrosia to the father Zeus, as Homer reports (Od. 12.59–65). In Euripides' *Bacchae* (1189–1192), Dionysos appears as a great hunter – like Orion – followed by hunting dogs. On the one hand, the dog-star Sirius appears here in the plural, as an enthusiastic retinue – for Euripides calls the Bacchae and Maenads 'dogs' (κύνες, 731). On the other hand, the dog in the Dionysos myth is also a hostile 'wolfhound', Λυκ-οῦργος ('who has the deeds of a wolf')[15] which according to Homer (Il. 6.130–140) drives the god into the sea. Of course, α *Canis Maioris* could be understood as a dog just because it eternally follows the most human-shaped constellation in the sky. Orion himself is thought of as a hunter because the images of escape and pursuit are common metaphors for the movement of the stars (Hübner 1998: 144, Berezkin 2005).

Another 'wolfhound' is Λυκοῦργος, the mythical founder of Sparta's legal and political institutions, who is conspicuous in being venerated with divine honors, rather than heroic ones like other city founders (Janda 2022a: 108f.). This implies that he should in fact be identified with a god, and given the wolf-like bynames Lykeios and Lykios applied to Apollo, he is the obvious candidate. Apollo is thus a wolfhound, but at the same time an archer who neither wages war nor hunts with his arrows, but sends disease, originally: in the heat of the dog days.[16] Apollo is an archer because the straight line of an arrow is seen in Orion:[17] the hunter, hunted and hit. The overlay and interweaving of motifs makes Apollo both a wolfhound and archer. His archaic, golden monumental statue on Delos shows him holding the life-size figures of the Three Charites on his outstretched hand.[18] Τρεῖς Χάριτες was also a name of the three bright stars of Orion's Belt (cf. Boll 1903: 272f.; Hübner 2010: I 37, 43, II 101f.).

Much more material could be added here (see also Janda 2022b and fc.), but I will finish with Calvert Watkins' supposition (1986 and 1995: 408–413) that the hero Meleagros does not look after a field (ἀγρός), but after his club. In his name Μελέ-(ϝ)αγρος, the second element has an etymological equivalent in Vedic *vájra-* '(Indra's) thunderbolt, club'. In the myth, Meleagros defeats the Calydonian boar, which seems to correspond to the *Hyades* 'piglets'[19] that form a constellation of their own in the head of the Bull just in front of the gigantic club-bearer Orion.[20]

15 Among the few who recognized the correct meaning of Λυκοῦργος is McCone (1987: 122).

16 On Apollo's prehistorical origin, see Janda (2022a).

17 For Indo-Iranian, see Forssman (1968: 57–59); for the connection with the arrow-shooter Artemis (and the material collected in Fontenrose 1981), see Janda (2016: 114–127).

18 An illustration is shown in Pfeiffer (1952: plate 4 = 1960: plate 1); cf. Burkert (2011: 144).

19 On this meaning of Ὑάδες, see Scherer (1953: 146f.).

20 On Homer's etymological play with Μελέ-(ϝ)αγρος, see Hanitzsch (in prep.).

6 Conclusion

This expansion of themes and motifs may seem to lead too far into the darkness of the firmament, into an obsolete mythology of nature. But it is clear that we do not want Athena to stand – or rather, drive – alone in the sky. Cumulative evidence is helping us (and will no doubt continue to do so in future studies) bring the Greeks into closer alignment with the rich, ancient cultures of Egypt and Mesopotamia, insofar as at least some of their gods also reigned from the night sky. It is striking to note that among Greeks, Indo-Iranians and probably Indo-Europeans, the celestial charioteer who travels across the sky is a woman, a goddess who combines war, wisdom and abundance in her personality. Myth and cult testify to Athena's power and mobility – we now see that these qualities derive from the eternal movement of a constellation.

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DELG = Pierre Chantraine. 2009. *Dictionnaire étymologique de la langue grecque. Histoire des mots*, ed. by Alain Blanc. Paris: Klincksieck.

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Quaecumque a Benveniste dicta essent, commenticia esse

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Émile Benveniste is one of the best-known Indo-Europeanists of the 20th century. His fame extends far beyond the field of Indo-European linguistics and his 1969 book, *Le vocabulaire des institutions indo-européennes*, is still widely cited by scholars in a variety of disciplines. In this paper I will show that Benveniste, though undoubtedly a scholar of great erudition and insight, pursued and promoted an incoherent and unconvincing method of lexical-cultural reconstruction. His analyses are often undermined by forced interpretations, a narrow focus on structural oppositions to the exclusion of sociolinguistic factors, and dogmatic assertion. The nonexpert reader of the *Vocabulaire* needs to treat the book with extreme caution, not blind acceptance.

Émile Benveniste (1902–1976) was a great Indo-Europeanist, Iranist, and general linguist. His work in the European structuralist tradition was influential for many later developments in intellectual life, especially in the Francophone world. I don't intend to examine his work as a general linguist or Iranist or even his Indo-European work on nominal morphology, which is little read today. Instead I'd like to focus on what is probably his most influential work of Indo-European linguistics, *Le vocabulaire des institutions indo-européennes*, first published in 1969[2] and

1 I hope scholars will not be offended by this title, a joking reference to the famous 1536 master's thesis of another French scholar, Petrus Ramus (Pierre de la Ramée), *Quaecumque ab Aristotele dicta essent, commenticia esse* "Whatever was said by Aristotele is fictitious". I obviously don't believe that of Benveniste anymore than Ramée believed it of Aristotle. Sadly a work with such a title may never have existed, but the title is reported in Johann Freig's life of Ramus prefixed to Ramus's *Praelectiones in Ciceronis Orationes Octo Consulares* (1575: 10). I would like to thank the organizers of the conference for the invitation to speak and Sasha Nikolaev for his careful reading and helpful comments. All errors are to be attributed to me.

2 The two volumes were actually released in 1970.

translated into English by Elizabeth Palmer in 1973[3] with the title *Indo-European Language and Society*. When I first entered the field of Indo-European, I was told by somebody, I don't remember who, that while Benveniste's works on nominal morphology were outmoded, his work on the lexicon was uniquely valuable and, indeed, this is true. There is no comparable book-length treatment of the culturally important vocabulary of the Indo-European languages.[4] The book is an insightful masterpiece and repays repeated close readings, but it is at the same time a deeply flawed work. And I don't mean just that new information has become available that Benveniste could not possibly have known, though that, of course, is sometimes true. I mean that the methods that produced the analyses were wrong-headed and that the distinctions that were drawn are patently contradicted by evidence available at the time. The role of derivational morphology is rarely considered even by contemporary standards. Of course, one could go back to the works of many earlier scholars of lasting value and find similar faults. For example, Karl Brugmann's etymological solutions are often misguided.

So why am I picking on Benveniste? *Le vocabulaire des institutions indo-européennes* has become a standard reference for scholars outside of Indo-European linguistics. Let me quote as exhibit A the first sentence of the preface to a re-issue of the *vocabulaire* written by the Italian philosopher Giorgio Agamben:[5]

> Émile Benveniste's *Le vocabulaire des institutions indo-européennes* is certainly the culmination of twentieth-century linguistics, in both senses of the term. It is here that the nineteenth-century project of comparative grammar had reached its highest point, and, simultaneously, coincided with its end.

I think most people reading this paper will be shocked and amused by this statement. Most 20th- and 21st-century linguists, I guarantee, have never heard of

3 Translations from the *Vocabulaire* are from Palmer. Other translations from French are my own. Translations from the Rig Veda are from Jamison and Brereton (2014). Translation from the Taittirīya Saṃhita are from Keith (1914). Translations from the Atharva Veda Śaunaka are from Whitney (1905).

4 There are the two works by Mallory and Adams (1997, 2006) but they are largely descriptive.

5 It's telling in itself that the preface was composed by Agamben, an Italian philosopher with no particular expertise in Indo-European linguistics that I know of, rather than a practicing Indo-Europeanist. What would philosophers think if I, not a professional philosopher and with only the most superficial knowledge of the field of philosophy as practiced today, claimed that Kant or Nāgārjuna was the culmination of philosophy?

Benveniste's book and those of us who have (I mean Indo-Europeanists) don't regard it as the culmination in either sense of the term.

Exhibit B: Charles de Lamberterie (1997: 355) wrote of the book:

> This work has been read, thought about, and cited not only by Indo-Europeanists but also by historians, prehistorians, sociologists, anthropologists, philosophers, literary scholars to such an extent that it has become in certain circles, with that typically French taste for orthodoxies, an obligatory reference which sometimes bordered on an oracle.[6]

I perceive here a slight irony about the status achieved by the book in France, even though the overall assessment of the book and its method is glowing. So the goal of this paper is to show that continued reliance on Benveniste's book impedes our understanding of some of the phenomena he examined and to illustrate common threads in Benveniste's approach that have led to misanalyses. It's especially important to problematize Benveniste because his reputation stands so high outside of the field of Indo-European linguistics. Some of the criticisms are from my own earlier published critiques of Benveniste's ideas, and others are expressed here for the first time. I should also add in defense of Benveniste that his book was intended to be a popularization of a lifetime's work and often summarizes more detailed treatments of earlier articles.

1 Gender

Let's begin at the beginning. The first chapter of the *Vocabulaire* is devoted to the topic of "male and sire". In this chapter Benveniste tries to bring some order to a vexing problem. In a number of Indo-European languages we have two similar forms with similar meanings in the area of 'male', 'male animal'. Some of these forms begin with a *$\underset{\sim}{u}$ and others without. The *$\underset{\sim}{u}$-initial forms mentioned by Benveniste are:

6 « Cet ouvrage a été lu, médité, cité non seulement par les indo-européanistes, mais aussi par les historiens, les préhistoriens, les sociologues, les anthropologues, les philosophes, les littéraires, au point de devenir dans certains milieux, avec ce goût bien français des orthodoxies, une référence obligée qui a parfois confiné à l'oracle. » The English version of the *Vocabulaire* is cited 876 times on Google scholar which is a lot for a book of Indo-European linguistics from the 1960s.

> Ved. *vṛ̥ṣabhá-* 'bull'; Av. **varəšan-* (on the basis of the derivatives Av. *varšni-* 'ram', Av. *varəšna-* 'male'); Lat. *uerrēs* 'boar'; Lith. *veršis* 'calf, bull, ox', Latv. *vẽrsis* 'bull, ox'[7]

The *u̯*-less forms he considers are:

> Ved. *ṛ̥ṣabhá-*; Av. *aršan-*; Gk. ἄρρην (which never has a digamma according to Benveniste)

Benveniste argues that in Vedic the two forms *vṛ̥ṣabhá-* and *ṛ̥ṣabhá-* are completely interchangeable referring to the 'mythological bull' or the 'male in general', but that in Avestan *aršan-* is used in specific opposition to a word for female, *xšaθrī* or *daēnu-*, e.g., *aspa- arəšan-* vs. *aspa- daēnu-*, and that this matches the functions of Gk. ἄρρην, which is also typically used to distinguish male from female. Therefore the PIE meaning of **ersen-* was 'male' in opposition to 'female'. The Avestan forms with initial *v-* on the other hand are not characteristic of a special class of beings but an epithet of functional value, i.e. 'sire', by which Benveniste means 'capable of siring offspring, virile'. Thus Avestan has uniquely preserved the PIE distinction between the two very similar forms one meaning 'male' and the other meaning 'sire'.

Let's assume Benveniste is correct. Most males are potentially sires and all sires are male. Thus any particular male may well be both a **u̯ṛ̥sen-* and a **ṛ̥sen-*. Is it really likely in a natural language that these two quite similar meanings would be distinguished by a single consonant? Of course, such things may happen since the sound-meaning correspondence is arbitrary, but it would be a remarkable and awkward coincidence.[8]

But let's examine the crucial Avestan evidence more closely. Benveniste gives you the impression that *aršan-* and **varšan-* are truly contrasting items in Avestan, but in fact, the *v-*initial forms are quite rare. The totality of evidence for the *v-*forms are three related hapaxes: *varšni-*, *varəšna-*, and the compound *varšni-*

7 Benveniste does not mention Ved. *vṛ̥ṣṇí-* 'ram', 'strong' and *vṛ̥ṣṇi-* 'strong'.

8 Of course this is not to deny that languages can make a distinction between 'male' and 'sire', but it seems to me that, in English at least, *sire* and its female analog *dam* are not really technical terms of farming. They are both metaphorical extensions of the human terms (*sire* ultimately from *senior* and *dam*(*e*) from *domina*). The crucial distinction, which *is* often marked in the ancient language of husbandry, is that between a castrated and a non-castrated male, but it is certain that neither *vṛ̥ṣan-* nor *ṛ̥ṣabhá-* refers to a castrated bovine which in Vedic is probably *ukṣán-*. See Falk (1982: 176).

haršta-. The form *varšni-* (derivational chain: **u̯ŕšn-* → **u̯aršna-* 'of the **u̯ŕšn-*' → **u̯(a)ršni-* 'the **u̯aršna-* one', cf. Ved. *vṛ́ṣṇí-* 'ram', 'strong' and *vṛ́ṣṇi-* 'strong'[9]) occurs in *Yasht* 17.56 when the heroine of the hymn, *Aši Vaŋʸhī*, describes her flight from the Turanians and Naotaras. In stanza 55 she takes refuge under the foot of a bull and in stanza 56 beneath the throat of a ram.

azəm tanūm aguze aδairi pāδəm gāuš aršnō barəmāiiaonahe (*Yt.* 17.55)
Then I hid myself beneath the foot of the bull Barmāyūn.

azəm tanūm aguze aδairi ***maēšahe*** *garō yaṯ* ***varšnōiš*** *satō.karahe* (*Yt.* 17.56)
I hid myself beneath the throat of the ram with a hundred horns.

We can see that, contrary to Benveniste, *aršnō* and *varšnōiš* are closely parallel in function. Benveniste might have argued that the difference is that *gau-* 'bovine' is epicene whereas *maēša-* 'sheep' has a distinct feminine *maēšī-* and thus *varšnōiš* cannot mean just 'male', which would be adequately conveyed by the noun itself. But this argument doesn't hold because Avestan uses the epithet *daēnunąm* to qualify the explicit feminine *maēšīnąm* at *Āfrīngān* 3.7.

The thematic stem also occurs only once, in *Nērangestān* in a passage regulating how high the firewood should be piled in a ritual undertaking. The answer is

yaθa varəšnahe kəhrpahe dāuš (N. 88.2)
like (i.e. as high as) the forearm/shoulder of a *varəšna-* body

I don't think we can decide from this minimal context what is actually intended.[10] Does it mean as high as a man's shoulder or as high as the shoulder of a reproductively capable male and would that difference be meaningful?[11] The best evidence for Benveniste's claim is the name of the fall festival *aiiāθrima- fraouruuaēštrima-varšniharšta-* 'homecoming characterized by the return (of cattle) and the release of rams' (*Y.* 1.9). Here it seems that we are talking about male animals in their generative capacity, but it would be equally possible to refer to males in general. When we combine this passage with the one from the *Yasht* 17 what stands out is

9 The barytone form is exclusively neuter. On the accentuation of these forms see Widmer (2004: 153–154).

10 In *Afr.* 3.5 firewood is to be stacked as high as an ear or a fore-shoulder.

11 I guess we could be talking about the difference between a 13-year-old and an adult, but would you call a 13-year-old a stud?

not so much that *varšni-* means 'sire' rather than 'male', but that it refers specifically to rams and that meaning matches Ved. *vṛ̥ṣṇí-* exactly.

When we examine the *aršan-* side of the coin we see the picture is also not very clear. In *Yasna* 65.2, the *Ābān Yasht*, dedicated to *Arədvī Sūrā Anāhita*, we read:

yā vīspanąm aršnąm xšudrå yaoždaδāiti
yā vīspanąm hāirišinąm ząθāi garəβąn yaoždaδāiti

Who enlivens the semen of all males,
Who enlivens the wombs of all females for giving birth

– where we seem to have the use of *aršan-* in a context focusing on generative capacity.

In Old Avestan at *Y.* 44.8 Zarathustra specifies *dasā aspå aršnauuaitīš uštrəmcā* 'ten mares with a stallion and a camel' as his priestly reward. The natural inference is that the *aršan-* is not just a male but a male in his generative capacity. Interestingly in Vedic (RV 8.68.18) we find *vṛ̥ṣaṇvatī* in a *dānastuti*:

aíṣu cetad vṛ̥ṣaṇvatī
antár ṛjréṣu áruṣī
svabhīśúḥ káśāvatī

In the midst of these silvery ones there appeared a ruddy female along with a bull, having good reins and a whip.

In later Iranian the *v*-less forms completely disappear but the *v*-ful forms are continued as the name of a variety of male animals, e.g., Oss. D. *wyrs*, I. *urs* 'stallion' (ultimately borrowed by some pathway into Fin. *varsa* 'foal'), Sogd. *wšn-* 'stallion', Wakhi *wəšəng* 'bull', Shugni *wīrn* 'ram', Wanji *wurom* 'stallion', Khwar. *'wšn* 'stallion', *'wšnycyk* 'young bull' (see Abaev 1989:125 and Bailey 1979: 296). In MP the word *gušn* 'male' replaces and translates Av. *aršan-* (*asp ī gušn* [*Zādspram* 3.15, etc.]), cf. also Syr. *ʔuʃnaʔ* 'stallion'.

Benveniste stakes his argument entirely on Avestan and simply dismisses the Vedic evidence as uninformative, but let's examine it more closely. In fact, as Tedesco (1945: 95) noted, *ṛṣabhá-* is rare in the Rig Veda, occurring only 4 times vs. 178 times for *vṛ̥ṣabhá-*. In the *Atharvaveda Śaunaka,* however, the ratio is *ṛṣabhá-* 25 : *vṛ̥ṣabhá-* 21 and by my count in the *Paippalāda* the ratio is *ṛṣabhá-* 43 : *vṛ̥ṣabhá-* 18. The four Rig-Vedic occurrences of *ṛṣabhá-* (6.16.47, 6.28.8, 10.91.14, and 10.166.1) are instructive. First, the forms clearly do not mean 'male' as opposed to 'female' but specifically the 'male bull as procreator'. In 6.16.47 and 10.91.14,

obviously drawing on similar poetic stock, *ṛ́ṣabhās* keep company with *ukṣáṇas* 'oxen' and *vaśás* 'mated cows'. The poets are talking about real sacrificial animals.

ā́ te agna ṛcā́ havír
hṛdā́ taṣṭám bharāmasi
té te bhavantu ukṣáṇa
ṛ́ṣabhā́so vaśā́ utá (RV 6.16.47, popular[12])

Here to you, Agni, we bring with a verse an oblation fashioned by our heart: let the oxen, bulls, and mated cows be yours.

yásminn áśvāsa ṛ́ṣabhā́sa ukṣáṇo
vaśā́ meṣā́ avasṛ́ṣṭā́sa āhutāḥ
kīlālapé sómapṛ́ṣṭhāya vedháse
hṛdā́ matíṃ janaye cā́rum agnáye (10.91.14)

(For him) into whom horses, bulls, oxen, mated cows, rams, once released, are poured out [=offered],
for the *kīlāla*-drinker who has soma on his back, for the ritual adept I generate with my heart a pleasing thought – for Agni.

In 6.28, a hymn dedicated to Indra and the cows, the insistence on the generative power of the *ṛ́ṣabhá-* is unmistakable.

úpedám upapárcanam
āsú góṣū́pa pṛ́cyatām
úpa ṛ́ṣabhásya rétasi
úpendra táva vīryè (6.28.8, popular)

Right here is the inseminator: let there be inseminating right here in these cows, right here when the semen of the bull (is here), right here when your virility (is here), Indra.

Only in 10.166.1 do we have *ṛ́ṣabhá-* used as a general symbol of masculine power:

ṛ́ṣabhám mā samānā́nāṃ
sapátnānāṃ viṣāsahím

12 "Popular" means that the hymn shows late, popular features according to the classification of Vedic language by Arnold based on metrical and morphophonological characteristics. See Arnold (1905: 22–27).

hantā́raṃ śátrūṇāṃ kṛdhi
virā́jaṃ gópatiṃ gávām (10.166.1, popular)

Make me bull over my equals,
smiter of my rivals, wide-ruling cattle-lord of cattle. (Attributed to Ṛṣabha Vairāja or Ṛṣabha Śākvara, a name probably extracted from the first stanza)

In the Rig Veda we cannot contrast the two terms in close proximity, but in post-RV texts we do find some interesting cases. In the TS 5.7.2.1–2 we read:

tvā́m agne ***vṛ́ṣabháṃ*** *cékitānam púnar yúvānam*
janáyann upā́gām asthūrí ṇo gā́rhapatyāni
santu tigména no bráhmaṇā sáṁ śiśādhi
paśávo vā́ eté yád íṣṭakāś cítyāṃcityām ***ṛ́ṣabhám*** *úpa dadhāti*
mithunám evā́sya tád yajñé karoti prajánanāyatásmād yūthéyūtha ***ṛ́ṣabháḥ***

To thee, O Agni, the **bull**, the wise, I have come, generating thee ever new; Be our household rites not halting; With thy keen holy power sharpen us. The bricks are cattle, in each layer he puts down a **bull** (brick); verily in his sacrifice he makes a pairing for propagation; therefore in every herd there is a **bull**.

Here the contrast is between the metaphorical symbol of strength, an epithet of the god Agni (*vṛ́ṣabháṃ*) and an actual sacrificial victim (*ṛ́ṣabháḥ*). The same contrast is seen at AVŚ 4.24.3–4:

yáś carṣaṇipró ***vṛ́ṣabháḥ*** *svarvíd yásmai grā́vāṇaḥ pravádanti*
nṛ́mṇam yásyādhvaráḥ saptáhotā mádiṣṭhaḥ sá no muñcatv áṃhasaḥ yásya
vaśā́sa ***ṛ́ṣabhā́sa*** *ukṣáṇo yásmai mīyánte*
sváravaḥ svarvíde yásmai śukráḥ pávate bráhmaśumbhitaḥ sá
no muñcatv áṃhasaḥ

He who is filler of people, bull (*vṛ́ṣabháḥ*), heaven-finder; for whom the pressing-stones proclaim his manliness; whose is the sacrifice with seven priests, most intoxicating—let him free us from distress. Whose are cows, bulls (*ṛ́ṣabhā́sa*), oxen; for whom the heaven-finder, sacrificial posts are set up; for whom the bright [soma] purifies itself, adorned with sacred words—let him free us from distress.

Here the god Indra is the *vṛ́ṣabháḥ* to whom the mortal cattle, subdivided into *vaśā́sa ṛ́ṣabhā́sa ukṣáṇo* 'cows, bulls, and oxen' belong. The post-RV texts also give us some other insights into how the semantic field was divided between *ṛ́ṣabhá-*,

vr̥ṣabhá-, and *vr̥ṣan-*. As Grassmann (1873, s.v.) noted, *vr̥ṣan-* is the more general word often used adjectivally and when a substantive is applicable to males other than bovids, for example, stallions. Ved. *vr̥ṣabhá-*, on the other hand, is typically a substantive 'bull' though it too can be extended metaphorically to other animals such as a horse. There are by my count seventeen stanzas in the Rig Veda containing both *vr̥ṣabhá-* and *vr̥ṣan-*. In seven stanzas we get the combination *vr̥ṣā vr̥ṣabhá-* 'bullish (or bull-strong) bull' (1.54.2; 1.103.6; 1.177.2; 4.16.20; 5.1.12; 6.44.20; 6.44.21 (2×!)). In post-RV Vedic we find that *vr̥ṣan-* specifically 'stallion' contrasts with *r̥ṣabhá-* 'bull' and *vr̥ṣṇí-* 'ram' (TS 7.3.14.1-14):

> *agnínā tápo 'nv abhavat vācā́ bráhma*
> *maṇínā rūpā́ṇi índreṇa devā́n vā́tena prāṇā́n sū́ryeṇa dyā́m*
> *candrámasā nákṣatrāṇi yaména pitŕ̥n rā́jñā manuṣyā̀n pha-*
> *léna nādeyā́n ajagaréṇa sarpā́n vyāghréṇāraṇyā́n paśū́n śyen-éna patatríṇas*
> ***vr̥ṣṇā́śvān r̥ṣabhéṇa gā́s*** *basténājā́s* ***vr̥ṣṇínā́vīs***
>
> By fire he surmounted fervour, by speech holy power, by a gem forms, by Indra the gods, by the wind the breaths, by the sun the sky, by the moon the Naksatras, by Yama the Pitrs, by the king men, by fruit the flavours, by the boa constrictor serpents, by the tiger wild beasts, by the eagle birds, by the stallion horses, by the bull kine, by the he-goat goats, by the ram sheep.

If Benveniste had chosen to privilege the Vedic evidence over the Avestan he could with equal justice have made the exact opposite case: the *v*-less forms refer to the male animal as 'sire' and the *v*-forms are the general word form 'male' as powerful hero. We could go on and examine the complicated Greek evidence, but it wouldn't change the essential picture. The distinction that Benveniste argues was the original is not supported by textual evidence when fairly considered. This conclusion is not new. The Benvenistean distinction has been rejected by at least Watkins (1973), Peters (1993), Pronk (2009), and Pinault (2020).

In my opinion, there is no functional distinction observable between the two terms. They both mean basically 'male' and sometimes the contrast is between 'male' and 'female' but other times the focus is on the procreative aspect of maleness. But if we compare just Indic and Iranian we can observe an interesting distribution. In Indic the *v*-less forms start off as non-standard. The basic *n*-stem is not attested at all, but *r̥ṣabhá-* occurs in late and popular hymns (according to Arnold 1905's classification) and starts to rival *vr̥ṣabhá-* in the Atharva Veda. But this upswing of *r̥ṣabhá-* was only temporary. If we look at the modern descendants of the two forms, we find that the *v*-ful forms are widespread throughout the

continent,[13] but the *v*-less forms survive only in the Northwest in the Nuristani languages[14] and in the 'Dardic' languages,[15] precisely the area closest to the Iranophone world.

In Iranian, on the other hand, the *v*-less form is dominant in the formal language of the Avesta and in Old Persian onomastics. The *v*-ful forms appear rarely and only in latish texts, and, in later Iranian the *v*-ful forms completely oust the *v*-less forms. Here it appears that the old standard form has been truly vanquished. Looking at this from the sociolinguistic point of view, the two synonymous terms were polarized in two neighboring speech communities. In the Indosphere the *v*-ful forms were standard and in the Iranosphere the *v*-less forms were.

Given Meillet's dictum (1906: 27) that "le langage est éminemment un fait social", Benveniste's relative insensitivity to sociolinguistic phenomena is surprising, but Benveniste explicitly distanced himself from simple-minded applications of Meillet's approach, writing (1970):

> There is correspondence neither of nature nor structure between the constitutive elements of language and those of society.[16]

One can only agree with this, but Benveniste went further, writing:

> … *we can isolate language, study it and describe it by itself without referring to its use in society or to its relations with the norms and social representations which make up culture.* Whereas it is impossible to describe society, to describe culture, apart from their linguistic expressions. In this sense, language includes society but is not included by it.[17] (My emphasis)

13 CDIAL p. 700: Nepali *basāhā* 'bull not used for ploughing'; Bihari *basahā* 'bull bought by religious mendicants'; Maithili *basah* 'bull', Bhojpuri *basahā*, Old Awadhi *basaha*, Hindi *basah* m.; Marathi *vasū* m. 'bull calf, bull branded and set at liberty', *vaśē*, *ośē* n. 'bullock's hump', Sinhalese *vähäp* 'ox'.

14 CDIAL p. 117: Ashkun *áṣä*, Kati *aṣə*, Waigali *aṣḗi*, Pašaī Lauṛowānī *aẓá*, with related forms in other dialects.

15 CDIAL p. 117: Gandhari *uṣavha*, Khowar *reṣú*, Kashmiri Kashṭawāṛī dialect *riśu*.

16 « [I]l n'y a de correspondance ni de nature ni de structure entre les éléments constitutifs de la langue et les éléments constitutifs de la société. » The quotation can be found in the reprint Benveniste (1974: 93).

17 « [D]u fait qu'on peut isoler la langue, l'étudier et la décrire pour elle-même sans se référer à son emploi dans la société, ni à ses rapports avec les normes et les représentations sociales qui forment la culture. Tandis qu'il est impossible de décrire la société, de décrire la culture, hors de leurs expressions linguistiques. En ce sens la langue inclut la

The highlighted words seem to me an overstatement. The elaborate and grammaticalized honorific systems of some languages could hardly be described without reference to social facts. But in this regard Benveniste was much closer to Saussure than Meillet (Puech & Radzynski 1988). Saussure wrote (1916: 42–43):

> We think that the study of external linguistic phenomena is very productive; but it is false to say that one cannot know the internal linguistic organism without them … Language is a system that knows only its own order.[18]

If we look at the wider picture, we can observe that the *u̯*-ful forms are found for sure in Latin, probably in Greek (γάρρης [i.e. ϝάρρης]· ἄρρης, Hesych. 183; see Danielsson 1899: 88), Indic, Iranian, Tocharian (TA *kayurṣ*, TB *kaurṣe* 'yak') and Baltic (Lith. *veršis* [AP 2] 'calf, bull, ox', Latv. *vẽrsis* 'bull, ox', OPr. *werstian*). The *u̯*-less forms are only found in Greek (ερσενῶν [Gortyn, IC IV.72, etc.]), Indic, Iranian, and Armenian (*aṙn* 'ram').[19] The *u̯*-ful forms show more than one formation: hysterokinetic *n*-stem, hysterokinetic *i*-stem (Lat. *uerrēs* which cannot continue an *n*-stem and could theoretically be a match for the Tocharian forms), *-iu̯o*-stem (Lith. *veršis*); while the *u̯*-less forms are only *n*-stems or derivatives thereof.[20] The *u̯*-ful *n*-stem forms were, despite their zero-grade root and hysterokinetic suffix ablaut, barytone. These facts taken together suggest that the *u̯*-ful forms are the only ones that should be projected back to Nuclear PIE and perhaps that the *n*-stem was originally amphikinetic **u̯érsōn*, **u̯r̥sn-és*.

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société, mais elle n'est pas incluse par elle. » The quotation can be found in the reprint Benveniste (1974: 95–96).

18 « Nous pensons que l'étude des phénomènes linguistiques externes est très fructueuse ; mais il est faux de dire que sans eux on ne puisse connaître l'organisme linguistique interne … La langue est un système qui ne connaît que son ordre propre. »

19 ON *orri* 'black grouse' and late OHG *orre-huon* m. 'capercaillie' have been taken from **r̥sḗn* already by Falk and Torp (1903: 5, s.v. *Aarfugl*) and by many subsequent scholars, e.g., de Vries (ANEW s.v.), but the West Germanic cognates OE *wōr-hana* m. 'pheasant', Du. *woer-haan* 'male pheasant' < pre-PGmc. **u̯ār-* and OHG *ūrhano* make the ultimate etymology of all these forms problematic. See the extensive discussion by Roland Schuhmann (EWAHD VI 2017: 1206–1209, s.v. *orrahano**). Kroonen (2013, s.v. **kursan-*) takes ON *kussi, kursi* 'calf' from **gʷh₃urs-en-*, but the form with *r* is only found once (*Guðmundar saga*, Guðbrandr Vigfússon et al. 1878: 182) to my knowledge, and the normal form is *kussi*. It is likely to represent a hypercorrect spelling. I thank Guðrún Þórhallsdóttir and Patrick Stiles for help with these forms.

20 See Schaffner (2005: 135–142) for a discussion of these forms.

I don't want to venture an etymology for one or both forms – I'm skeptical of the connection with **h₂u̯ers-* 'rain'[21] and **h₁ers-* 'flow' – and I don't find any of the explanations for how the **u̯-*less forms came about completely convincing though I think metanalysis or dissimilation (**u̯r̥sn̥bʰo-* > **r̥sn̥bʰo-*, cf. **śvitipad-* > *śitipád-* 'white-footed' (Debrunner 1938: 171–173) or **u̯r̥sn̥u̯n̥t-* (Ved. *vr̥ṣaṇvat-*) > **r̥sn̥u̯n̥t-* (YAv. *aršauuant-*)??) must be on the right track.

To sum up: the underlying presupposition of Benveniste's study is that there *should* be a semantic distinction reconstructible for two distinct forms. This is obviously a good approach, but the evidence flies in the face of any neat solution, and instead of abandoning this approach to consider other avenues of explanation, Benveniste chose to privilege one branch, not coincidentally Iranian (n.b. Teeter's Law).[22] But even the evidence of Iranian hardly supports the proposed semantic distinction.

2 Power

2.1 Lat. *cēnsor* and *cēnsus*

Benveniste examined some of the key political terms of Roman culture in the book and in particular tried to explain and illuminate the institution of *cēnsor* and the concept of *auctoritās*. In Latin we have the nouns *cēnsor*, a magistrate, and *cēnsus,* the official act the censor performs. The related verb *cēnseō*, Benveniste says, means 'estimate, judge, pronounce an opinion'. In Indo-Iranian the comparanda usually cited are Ved. *śaṃs-* 'praise', Av. *saŋh-* 'proclaim solemnly' and OP *θa(n)h-* 'proclaim'. The PIE meaning is traditionally given as 'proclaim solemnly', 'feierlich sprechen'. But Benveniste is rightly not satisfied with such a meaning. As Thurneysen noted wryly in the TLL (s.v.), "*censeo* is connected with Pers. *ϑātij*, Aves. *sąhaiti* 'proclaims', Sanskrit *śámsati* 'declaims, praises' more because of similarity of sounds than similarity of meaning."[23] Instead Benveniste suggests again that Iranian, in this case, Old Persian, has uniquely preserved valuable information about the original semantics of the root. He reviews the

21 This etymology already occurs in the Nirukta 9.21 *vr̥ṣabhaḥ prajāṃ varṣati* "The bull rains offspring."

22 Watkins (1976: 310): the language of the family you know best always turns out to be the most archaic.

23 "[*C*]*enseo*: similitudine sonorum magis quam significationis conectitur c. pers. *ϑātij*, med. *sąhaiti* 'pronuntiat', ind. *śáṃsati* 'declamat, laudat, pronuntiat.'"

occurrences of the verb in the Old Persian inscriptions and determines that the verb means not just 'to say' but "to assert with authority as being the truth; to say what corresponds to the nature of things; to proclaim the norm of behavior."[24]

But it is difficult to judge the necessity of this translation because most statements using this verb are by the Achaemenid emperor and as such are invested pragmatically with an authority they would not have if uttered by the average Old Persian speaker. Benveniste makes much of the existence of another verb of speaking *gaub-* which is used more or less in the negative sense 'purport, claim', but this actually weakens the case because it suggests that there is a marked verb of speaking falsely. And if there is a marked verb of speaking falsely and marked verb of speaking that asserts the truth, then what is the Old Persian verb of just 'speaking'? If we examine one context where *θa(n)h-* and *gaub-* occur in close proximity, it is instructive.

> *avaθāšām aθaham: paraitā avam kāram*
> *Bābiruviyam jatā haya manā naiy gaubataiy* (*DB* 3.85–86)
>
> Thus I said to them: Go forth and smite the Babylonian army which claims not to be mine!

You cannot normally assert the truth of an imperative because the meanings of imperatives are not truth-conditional, so Benveniste would have to say that Darius is not asserting this in a technical sense but speaking with full authority when he issues the command. Benveniste writes:

> Our definition makes intelligible the specialization of sense undergone by *censeo*, *census*, *censor* in Roman institutions. In that he establishes with authority a factual truth, the censor proclaims the situation of each citizen and his rank in society.[25]

But this isn't compelling. Establishing the factual truth is not what a *cēnsor* or a *cēnsus* does. Of course, the *cēnsor* is in theory truthful, but what he does is establish the value of every citizen's property. He evaluates. 'To evaluate' is the best starting point for the developments we see in the Indo-European languages.

24 « [A]ffirmer avec autorité comme étant la vérité ; dire ce qui est conforme à la nature des choses ; énoncer la norme de conduite. »

25 « Notre définition rend compte de la spécialisation que *censeo, census, censor* ont reçue dans les institutions romaines. En tant qu'il spécifie avec autorité une vérité de fait, le *censor* prononce la situation de chacun et son rang dans la société. »

From 'evaluate' to 'praise' (as in Ved. *śaṃs-*) is precisely the pathway behind such an obscure word as PDE *praise*, via Anglo-Norman French ultimately from Late Latin *pretiare* 'put a price on something'. The pathway from 'evaluate' to 'speak' is paralleled roughly by PDE *count ~ recount* and PDE *tell* beside NHG *zahlen*. It is notable that Benveniste never argues by citing parallels. What semantic developments he regards as probable are ipso facto probable.

Let us examine the Latin facts more closely—and here I am drawing on a joint paper by Benjamin Fortson and myself (Fortson & Weiss 2019); the basic analysis of the forms of the verb and the meanings is Fortson's. The verb *cēnseō* has two interesting features. First, it has two related but semantically and syntactically distinct sets of meanings: 'to assess, tax, estimate, value', on the one hand, which is frequently found in the passive, e.g., Plaut. *Tri*. 873:

heus senex, census quom sum iuratori recte rationem dedi
Hey old man, I was assessed when I gave a correct account to the assessor.

The other set is 'opine, deem, judge, vote, resolve, decree, approve', which is rarely in the passive and is usually followed by an object clause, e.g., Naevius *poet*. 44 (45):

censet eo uenturum obuiam Poenum.
He reckons that the Carthaginian will come there to meet him.

This distribution is watertight in Old Latin though the non-technical sense 'opine' is naturally much more common.[26] It's obvious that the first sense is at the basis of *cēnsor* and *cēnsus*, as already noted by Varro *L*. 5.81:

Censor ad cuius censionem, id est arbitrium, censeretur populus.
The censor is the one at whose judgment the people are reckoned.

Second, although the first three principal parts are not irregular or surprising, the fourth, which is also the basis for the clearly ancient, derived nominal system

26 Plaut. Capt. 15 *uos qui potestis ope uestra censerier* "you who can be assessed by census with your own wealth"; Poen. 55–56 *Nomen iam habetis: nunc rationes ceteras / Accipite: nam argumentum hoc hic censebitur* "Now you have the name of the play. Now receive the other accounts. For this argument will be reckoned here like the census"; Tri. 493–494 *Aequo mendicus atque ille opulentissumus / censetur censu ad Acheruntem mortuos* "The beggar and the richest man are rated equally in the underworld when dead."

(*cēnsor, cēnsus*, etc.), is *cēnsus* and not †*cēnsitus* as one would normally expect for a second-conjugation verb with a perfect in *-uī*.

Before we move on to suggesting how to interpret this data, I'll make two observations in passing. First, according to Roman tradition, the *cēnsus* predates the *cēnsor*. The first census that we know of was allegedly conducted under Servius Tullius and the *census* in the early Republican period was not conducted by the *censor* but by the consuls (Liv. 1.43; D.H. 4.16–9). It was only in 443 BCE that the office of *cēnsor* was created (Liv. 4.8). If we take this account seriously, the original fact is the *cēnsus* not the *cēnsor*. Second, Plautus and later authors are full of examples of the verb *cēnseō* in the meaning 'believe falsely'. In Plautus' *Amphitryo* 134–135, the classic example of a mistaken identity play, we read:

> *illa illum censet uirum / suom esse quae cum moecho est.*
> She who is with an adulterer thinks that man is her husband.

If the original meaning was 'to speak in accordance with reality' this is a surprising development, though of course it can't be entirely excluded.

These two features, one semanto-syntactic and the other morphological, can be explained if we suppose that the Latin verb is the conflation of two distinct paradigms in Proto-Italic. The root **ĥkens-* made a thematic present, roughly 'evaluate'. The perfect passive participle (ppp.) of the simple thematic was **ĥn̥stós* 'evaluated, rated'. This would have yielded Lat. **kenstos* which, remade under the influence of **penssos* 'weighed', became **kenssos* and then *cēnsus*. This ppp. is the source of the meaning 'assess, value' which prototypically is associated with passive voice. On the other hand, the iterative **ĥkonseie̯-* 'evaluate (comprehensively?) in speech', where the iterative morphology perhaps emphasized the event-internal plurality of the evaluative act (cf. in this semantic area Lat. *tongeō* 'know' [Enn.], Go. *þagkjan* 'to think'), developed the meaning 'reckon, decree.' Thus the original Proto-Italic situation was:

> pres. **kenseti*, ppp. **kenssos* 'evaluate'
> pres. **konsēti*, pres. ptc. **konsēns*, ppp. **konsetos* 'reckon, decide'

Precisely the present participle of this old verb is now attested in Oscan **kúnsíf**, and its Latin cognate in the plural is the origin of the Latin *Dei Consentes*, 'the decreeing gods'. And, to add something we failed to note at the time, the spelling *cons-* is very well attested in the Latin glosses (*conset* CGL 1.206; *consebat* CGL 5.184.29, etc.), which can be interpreted as a confirmation of the existence

of **konsē-* predicted by our conflation hypothesis. The old verb **kenseti* lent its *e*-grade to the iterative-causative **konsēti* to yield the attested *censet*. Thus it is Italic that comes closest to preserving the original meaning of this root which was not 'assert as true', but 'evaluate', and the TochB verb *ṣaṃṣtär* 'counts' (predominantly middle) < **sk̂ens-* confirms this old meaning.

2.2 Lat. *auctoritās*

Benveniste next turns to the problem of the connection between the root of Lat. *augeō* and two important nominal derivatives of this root, *auctor* and *augur*. He writes:

> It would be of interest to find out how the notion of 'authority' came to be derived from a root which simply means 'grow, increase'. Our dictionaries, which translate the verb with this meaning, also define *auctor* as 'he who causes to grow, the author'. This definition seems strange and in any case it is inadequate. We are invited to believe that the profound meaning of *auctor* could be simply traced back to the notion of 'growth'. This is hardly satisfactory. The notion expressed by *auctor* and its abstract *auctoritas* is difficult to reconcile with the sense 'to increase', which of course is indubitably that of the verb *augeo*. But is this the primary sense of the verb *augere*?[27]

Benveniste doesn't actually engage with what exactly *auctor* means and why this is impossible to connect with a meaning 'to grow', but he turns instead to establishing what the older meaning of the root might have been in order to explain how that meaning can more straightforwardly explain the meaning of *auctor*. Obviously, a correct approach. He goes on:

> Scholars persist in translating *augeo* as 'increase'. This is accurate for the classical period but not for the earliest texts. For us 'to augment' is equiva-

27 « On voudrait savoir comment il se fait que la notion d' "autorité" ait pris naissance dans une racine qui signifie simplement "augmenter, accroître". Tout en traduisant ainsi le verbe, nos dictionnaires donnent *auctor* comme "celui qui fait pousser, l'auteur". Cette définition paraît étrange et en tout cas insuffisante. Le sens si profond de *auctor* serait rapport simplement à celui de "accroître". Ce n'est guère satisfaisant. La notion de *auctor*, celle de son abstrait *auctoritas* se concilient difficilement avec le sens de "augmenter" que *augeo* a en effet et qu'il ne s'agit pas de contester. Mais est-ce le sens premier du verbe *augere* ? »

lent to 'to increase, to make something *which existed before* bigger'. Herein lies the unnoticed difference from *augeo*. In its oldest uses *augeo* denotes not the increase in something which already exists but the act of producing from within itself; a creative act which causes something to arise from a nutrient medium and which is the privilege of the gods or the great natural forces, but not of men. Lucretius often makes use of this verb when he is retracing the genesis of beings in the universal rhythm of birth and death: *quodcumque alias ex se res auget alitque* "whatever thing gives rise to other things from itself and nurtures them" (V 322); *morigera ad fruges augendas atque animantis* "prone to engender plants and living creatures" (V 80). In the archaic prayer formulas the Romans also used *augere* of the benefits they expected from the gods, namely of 'promoting' all their enterprises: *Divi divaeque … vos precor quaesoque uti quae in meo imperio gesta sunt, geruntur, postque gerentur, … ea vos omnia bene iuvetis, bonis auctibus auxitis* "Ye gods and goddesses, I pray and beseech you, that whatever has been done, is being done, and shall be done hereafter under my *imperium*, you shall aid all those things and increase them with good increases', that is, cause them to prosper (Livy 29, 27).[28]

28 « On persiste à traduire *augeo* par "augmenter" ; c'est exact dans la langue classique, mais non au début de la tradition. Pour nous, "augmenter" équivaut à "accroître, rendre plus grand quelque chose qui existe déjà". Là est la différence, inaperçue, avec *augeo*. Dans ses plus anciens emplois, *augeo* indique non le fait d'accroître ce qui existe, mais l'acte de produire hors de son propre sein ; acte créateur qui fait surgir quelque chose d'un milieu nourricier et qui est le privilège des dieux ou des grandes forces naturelles, non des hommes. Lucrèce met souvent ce verbe en valeur quand il retrace la genèse des êtres dans le rythme universel des naissances et des morts : *quodcumque alias ex se res auget alitque* "tout corps qui fait naître de soi et alimente d'autres choses" (V 322) ; *morigera ad fruges augendas atque animantis* "docile à faire naître les plantes et les êtres" (V 80). Et dans les formules de prières archaïques, les Romains désignent aussi par *augere* le bienfait qu'ils attendant des dieux, de "promouvoir" toutes leurs entreprises : *Diui diuaeque … , uos precor quaesoque uti quae in meo imperio gesta sunt, geruntur, postque gerentur, … ea uos omnia bene iuuetis, bonis auctibus auxitis* (Liv. 29, 27). »
Interestingly, Agamben (2005: 76) actually engages with this claim in his book *State of Exception*. He writes: "In the section of his *Indo-European Language and Society* dedicated to law Benveniste sought to show that originally the verb *augeo* (which, in the Indo-European area, is significantly related to terms that express force) 'denotes not the increase in something which already exists but the act of producing from one's own breast; a creative act' (Benveniste 1969, 2:148/422). In truth, the two meanings are not contradictory at all in classical law. Indeed, the Greco-Roman world does not know creation *ex nihilo*; rather, every act of creation always involves something else—

I have dealt with the meaning of *augeō* in Latin in a paper from 2011, and I repeat some of my conclusions from that paper here. First, it's noteworthy that Benveniste's examples of the supposedly oldest meaning of *augeō* don't actually come from Old Latin. Second, it is not evident that *augeō* means 'creates' in any of these passages. Let's examine the first Lucretius passage cited by Benveniste in its context (5.318–323):

Denique iam tuere hoc, circum supraque quod omnem
continet amplexu terram: si procreat ex se
omnia, quod quidam memorant, recipitque perempta,
totum natiuo mortali corpore constat.
nam quodcumque alias ex se res auget alitque
deminui debet, recreari, cum recipit res.

Again, do but behold that which around and above
comprehends all the earth in its embrace: if it makes
from itself all things, as some declare, and takes them
back when they are destroyed, then the whole consists
of a body subject to birth and death. For whatever
increases and nourishes other things from itself must

formless matter or incomplete being—that must be perfected or made to grow. Every creation is always a cocreation just as every author is always a coauthor."

The humble philologist must take exception to such generalizations as "the Greco-Roman world does not know creation *ex nihilo*." In a passage from *De Divinatione* 2.37, Cicero discusses whether a sacrificial animal's heart might just disappear after the animal was slaughtered and examined. *Non ergo omnium ortus atque obitus natura conficiet, et erit aliquid, quod aut ex nihilo oriatur aut in nihilum subito occidat. Quis hoc physicus dixit umquam? 'Haruspices dicunt.' His igitur quam physicis credendum potius existumas?* "Then the creation and destruction of all things are not due to nature, and there are some things which spring from nothing or suddenly become nothing. Was any such statement ever made by any natural philosopher? 'It is made,' you say, 'by soothsayers.' Then do you think that soothsayers are worthier of belief than natural philosophers?" (Translation H. Rackham, Loeb edition).

Cicero contrasts the view of a natural philosopher (*physicus*) who denies that anything can pass in or out of existence with the view of soothsayers (*haruspices*) who had no problem with this idea. The fact that philosophers took pains to deny this belief (cf. Lucr. 1.148: *nullam rem e nihilo gigni divinitus umquam* "nothing is ever created out of nothing by divine power") shows that Greco-Roman antiquity *did* know creation *ex nihilo*. It is not the views of natural philosophers but of haruspices and ordinary speakers that are relevant.

be diminished and remade when it receives things back. (Translation W.H.D. Rouse, Loeb edition)

Here Lucretius is arguing for the mortality of the sky (*circum supraque quod omnem / continet amplexu terram*). The argument goes that if the sky creates all things from itself (*si procreat ex se / omnia*) as some maintain, it suffers changes of decrease (when it causes something to grow) and increase (when it receives the matter back into itself). In this passage what is being described is a zero-sum event: what matter *caelum* re-attributes to another entity is subtracted from itself only to be reabsorbed when the entity perishes. But more importantly, the Lucretius passage is closely modeled on a passage from a truly Old Latin author Pacuvius (*Chryses* 86–87, 89, 90–92 R):

Hoc uide, circum supraque quod complexu continet
terram.
…
Id quod nostri caelum memorant, Grai perhibent aethera
…
quidquid est hoc, omnia animat, format, alit, auget, creat,
sepelit recipitque in sese omnia, omniumque idemst pater,
Indidemque eadem aeque oriuntur deintegro atque eodem occidunt.

See that which holds the earth around and above in its embrace. That which our people call the *caelum* and the Greeks *aether*. Whatever it is, it enlivens all things, forms, nourishes, increases, creates, buries, and receives in itself all things, the same is the father of all. Again and again the same things rise up in the same way afresh and fall back into the same. (My translation)

In the crucial line of Pacuvius we see that *caelum*'s contributions to life are more finely delineated. It creates all things (*creat*), and it makes them increase (*auget*). The fact is that a survey of the use of *augēre* in Old Latin does not show that the word means 'create', but simply 'increase' (transitive). In a literal sense it means 'add to a preexisting entity'. This addition can be in kind, in discreet units, or in a gradient fashion (often of wealth). A thing may be *auctus* by an event or activity which does not add in kind, but adorns, supports, or favors the pre-existing entity. This may be a concrete thing like an altar, or it may be something more abstract such as a friendship, or an individual's spirit. The gods may be on occasion the source of this favor, but the thing *auctus* can also be, and quite often is, a negative.

My point here is not to explain how *auctor* got the many meanings that it ended up getting. Instead I am highlighting a typical working method of Benveniste, which can be summarized as follows:

1 Identify a key word with a problematic etymology.
2 Choose a meaning of the key word that you judge a probable starting point.
3 Find examples of that meaning in texts (don't worry too much about text chronology, context, semantic parallels, or phylogenetics).
4 Assert that the problem is thereby solved or illuminated.

There are many, many other debatable claims throughout the *Vocabulaire* – e.g., **dom-* did not refer to a physical dwelling (see Weiss 2017a); **péḱu-* meant 'moveable wealth' and not 'small domestic animals'; the meaning of *rēx* is related to the Latin idiom *regere fīnēs* (see Weiss 2017b); 'orphan' and 'heir' are the same concept (see Weiss 2016b); the two types of sacred, etc. But now it is time to sum up.

Benveniste worked by insight and not systematically. He had a very broad command of the literatures of the early Indo-European languages, but he could be surprisingly arbitrary in singling out what he considered the crucial detail. Benveniste chose Hegel's epigram "Das Wahre ist das Ganze" for his *Origines* (Benveniste 1935: 2), but his approach to the institutional vocabulary was fragmented and unhistorical. Despite his focus specifically on the institutional vocabulary of the ancient Indo-European-speaking societies, he had little interest in a sociological or sociolinguistic approach. His search for fine distinctions recalls the search for the Adamic language. Smart people like clever solutions and these can be found in abundance in Benveniste, but sometimes philology and a rigorously applied theoretical approach to morphology can go a long way. Benveniste's *Vocabulaire* is a classic of Indo-European linguistics and will be read with interest as long as Indo-European linguistics lasts, but it is far from the culmination of our project.

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PART II
POWER, MOBILITY, AND CONFLICT

The wolf, the lamb, and the dog

An Aesopian guide to Indo-European sociology

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By proceeding from August Schleicher's exercise in representing the character of spoken Proto-Indo-European through a self-invented fable, an attempt is made to extend the fable as a progymnastic tool of comparison in terms also of its moral so as to grasp the fundamentals of Indo-European sociology. Two fables from the Aesopean corpus ("The Lamb and the Wolf [Perry Index 261]" and "The Wolf and the Well-fed Dog [Perry Index 346]") are selected for this purpose in order to create a model consisting of four parametric slots: that of (1) the pastoral obligations of kingship; (2) the merits of hospitality and patronage; (3) crime, deception, and prostitution; and (4) the punitive and martial obligations of wolfish kingship.

The following text is meant as a sketch. Apart from merely 'scare quoting' itself as an unfinished proposal, it might also be excused for appearing a bit presumptuous. Notwithstanding these apparent shortcomings, I hope that the following thought experiment will be received in the same ludic spirit of intellectual curiosity in which it was conceived.

1 Extending Schleicher's exercise

In a brief communication to the journal *Beiträge zur vergleichende Sprachforschung auf dem Gebiete der arischen, celtischen und slawischen Sprachen* from 1868, August Schleicher presented the result of a first attempt to compose a comprehensive text in reconstructed Proto-Indo-European: a fable entitled *Avis akvāsas ka* "[The] sheep and [the] horses" (Schleicher 1868). Shortly before dying of tuberculosis at the age of 47, the pioneering linguist described this exercise to have been in part a pastime (*animi causa*), and in part an attestation to the possibility of constructing coherent sentences on the basis of secure cognates. It was by force a rather shoddy piece of work, because the still scarce set-up of recon-

structed grammar and lexicon – not least the "almost complete lack of particles" (*fast gänzliche mangel an partikeln*) – did not suffice to translate an extant text (Schleicher 1868: 206).

Schleicher unsurprisingly ended up with a self-invented fable. This rudimentary form of narrative had been recognized ever since antiquity as the preferable starting point in a set of exercises (so-called *progymnásmata*) used by teachers of rhetoric. A fable is typically short and concise, contains familiar words arranged in simple sentences, and conveys a clear-cut moral. If this genre served Schleicher well in his exercise to begin imagining the spoken character of a hypothetical proto-language, it was not so much in consideration of its moral, but rather due to the linguistic facility of the genre. Today, not only has the increasing detail with which reconstructed PIE is conceived drastically changed the current shape of the fable – the comparative endeavour has also reached far beyond the reconstruction of a hypothetical language into the hypothetical culture of its speakers, with new languages and language branches added to the comparative record, the relative chronology of distinct branching events outlined in great detail, contours and relics of IE institutions and poetics explored, and archaeological horizons and migrations taken into consideration.

The time thus seems ripe to take Schleicher's progymnastic exercise a step further by exploring the fable as a tool of comparison in terms also of its moral, or the succinctness of its content, so as to assist us in imagining a sufficiently 'real' society behind the inherited PIE vocabulary. This exercise should not be taken to imply that the two Aesopean fables selected for this purpose did themselves originate in PIE (or perhaps rather Core-Indo-European, see note 2) society, but rather that they can be employed retrospectively as minor units of cultural significance with which to make sense of this hypothetical society. Otherwise put: the two fables become means of exploring the kind of sense that exponents to a given social reality could have made of them.

2 Sociological preliminaries

It is easy to be overwhelmed by the very prospect of imagining an IE society with a clear-cut demography prior to its gradual dissolution from the early 3rd millennium BCE onwards. Even if the existence of a once flourishing cultural continuum – roughly coinciding with the flourishing of Sumer during the so-called Uruk period between 4100 and 3000 BCE – seems compelling on linguistic grounds, it is necessarily a culture without a history. Unlike the case of Sumer, IE society is an

abstraction (à la Saussure's *langue*) situated outside of the events in which it took shape, unfolded, and dissolved. There are no traces in any historical record of such an aggregate of people, let alone anything to suggest that the ethnic groups eventually identified as Indo-Europeans in modern scholarship ever situated themselves in a shared past beyond the clades now tentatively labelled 'Anatolian', 'Indo-Iranian', 'Greek', 'Italic', 'Germanic', etc.

IE society belongs in that peculiar borderland between ancient history and prehistory – between historically situated texts and dumb archaeological remains – that George Dumézil cleverly referred to as "ultra-history", intending thereby the most extreme fringe of history towards which a historian might aspire to reach by systematically comparing secondary manifestations of the same apparent prototype (Dumézil 1973: 14). In order not to confuse map and conjecture with real territory and testimony, however, any attempt at imagining such an archetypal class of cultural objects has to resist the idealistic impulse of hypercorrectivity. What we can aspire to do is, at best, to reach for a sense of mutual comprehensibility among linguistically, culturally, and geographically related groups in a period prior to a series of migrations that eventually caused that continuum to dissolve. A similar sense of relative linguistic and sociocultural proximity is likely to have prevailed among Semitic-speaking peoples in the Levant during the 4th millennium BCE, Germanic-speaking peoples in Central Europe and Southern Scandinavia during the 1st millennium BCE and early 1st millennium CE, and Turkic-speaking peoples in Central Asia during roughly the same period.[1]

I need to clarify from the start that the caption "Indo-European Sociology" is not meant here to suggest the outcome of a modern sociological (Durkheimian, Weberian, Bourdieuan, etc.) approach to a prehistoric speech community. Rather, I shall be using the term in its explicit sense, implying thereby that at least a

1 When a given people is attributed temporal primacy in the transmission of certain cultural traits, this position will often pass as a sign of superior status. In order to avoid such confusion, it is crucial to distinguish the evaluative conclusions that come with simplistic (whether imperialistic or diffusionistic) explanations from the fact of cultural diffusion itself. It would be pointless to deny that the population of the British Isles around 1600 must be attributed temporal primacy in the transmission of certain cultural traits (including the English language) to other parts of the world as a consequence of migrations and colonisation during the following centuries. How one chooses to delineate and evaluate the unique composition of 'British culture' by that period, and the consequences of its global impact, is an entirely different thing. For a lucid take on these issues, see Ginzburg's response to Lincoln in Lincoln & Ginzburg (2020).

fraction of this community subscribed to a particular logic of social intercourse (a sociology), just as there would have been an anthropology, a theology, and a cosmology from which to derive prevalent notions about humans, gods, and the world. The reader should not be misled to assume that such principles of validation were commonly endorsed by all. Quite the contrary, they were most likely also principles of subjugation, organized theft, slavery, blood feud, exploitation, and various forms of dehumanization. Considering the impact of 20th-century sociological scholarship on figures such as Dumézil, it would be presumptuous to begin outlining such a sociology afresh. Much of what we already seem to know cannot easily be unlearned. And yet, it seems advisable to resist applying sociological models that are themselves the outcome of advanced modern scholarship.

Without allowing too much circularity into the argument, however, I believe there is currently enough comparative linguistic and philological evidence at hand to afford a few general assumptions about the socio-economic characteristics of the Core-Indo-European (CIE) speech community, and from which to begin building a more nuanced model.[2] IE society was most likely a conglomerate of patrifocal chiefdoms with an already developed system of stratification and professionalisation. Most strikingly to judge from the best textual evidence, there was a warrior elite and hired ritual professionals. Bovines, horses, sheep, and goats were slaughtered and consumed at communal sacrifices through the patronage of chiefs. These animals also functioned as a kind of currency, both as tokens of accumulated wealth among their owners, and as payment for ritual services that could likewise increase the prestige of their patrons. Poetry was composed in praise of a chief's bravery and generosity in a style roughly analogous to the hymns accompanying the cult.

The dynamic of IE religion can be effectively outlined against the background of two interdependent ritual frameworks. As indicated by reconstructed vocabulary, these frameworks must have existed in some rudimentary form in PIE society. They correspond to different yet equally fundamental procedures by which extra-familial relations are created and sustained, namely in symmetrical relationships based on mutual trust and benefit between equals, and in asymmetric relationships between patrons and clients based on the exchange of goods and

2 It seems advisable to proceed from such comparative evidence in addressing the socio-economic characteristics of a CIE (rather than PIE) speech community, because many of the standard lexical, poetic, and anthroponomastic comparanda on the basis of which such characteristics are reconstructed cannot be attested in the Anatolian languages.

services. The latter relationship requires a certain degree of professionalisation as well as some form of patronage. If ties of hospitality are ritually created, ties of patron-clientage are the preconditioned means to such an end. Without the assistance of hired ritual professionals (on a par with modern party fixers), the hospitable act of social bonding loses its quality of pageantry. Terminological confusion might arise due to the fact that the term *client* is sometimes used by scholars of religion in its modern sense to denote a ritual customer, that is, someone who buys the services of a religious specialist. According to the original function of the ancient Roman patron–client system, however, a ritual specialist hired by a patron must be considered a client, because he economically depends on his patron. This is not to say that systems of patronage and hospitality cannot be intentionally confused so as to serve specific rhetorical ends. A critical passage in Pindar's *Nemean 7* (61–63) is suggestive of this operation:

> ξεῖνός εἰμι: σκοτεινὸν ἀπέχων ψόγον,
> ὕδατος ὥτε ῥοὰς φίλον ἐς ἄνδρ' ἄγων
> κλέος ἐτήτυμον αἰνέσω: ποτίφορος δ' ἀγαθοῖσι μισθὸς οὗτος.
>
> I am (your [i.e., Thearion's]) guest-friend. Keeping away dark blame, like streams of water with praises to the man who is my friend I shall bring true fame: for that is the proper reward for good men (trans. Race)

By laying claims on being a guest-friend (ξεῖνος) of his host and securing his host's reward in the form of fame (κλέος), Pindar obfuscates the fact that he is not really a guest-friend after all, but rather a client who (with a subtle threat of ψόγος 'blame') expects hard currency in return from his patron.

3 The fables

It is now time to introduce the two Aesopean fables, and then to begin considering their suitability in bringing prevalent topics of IE sociology (such as social mobility, gender roles, and kingship, but perhaps most importantly systems of patronage and hospitality) into a comprehensive model. They run as follows:

> **The Lamb and the Wolf** (Perry Index 261)
> A Wolf pursued a Lamb, which fled for refuge to a certain Temple. The Wolf called out to him and said, "The Priest will slay you in sacrifice, if he should

catch you." To which the Lamb replied, "It would be better for me to be sacrificed in the Temple than to be eaten by you."

The Wolf and the Well-fed Dog (Perry Index 346)
A Wolf, emaciated with hunger, happened to meet a well-fed Dog. After greeting each other, they came to a stand and the Wolf said: "How comes it, do tell me, that you look so sleek? What have you been eating to put on so much flesh? I am much stronger than you, and yet I am starving." The Dog replied frankly: "The same lot may be yours if you can render like service to a master." "What is that?" said he. "To be the guardian of his threshold and protect his house from thieves at night. Bread is brought to me without my asking; my master gives me bones from his own table; the servants toss out tidbits to me and whatever dainties anyone has no taste for. In this way my belly is replenished at no pains." "Well," said the Wolf, "I'm ready for that all right; at present I have to endure snow and rain, and it is a hard life that I lead in the woods. How much easier for me it would be to live under a roof, and at my ease to sate myself with food in abundance." "Well then, come with me," said the Dog.

As they were going along the Wolf noticed that the Dog's neck had been worn bare by a chain. "How did this happen, my friend?" "Oh, it's nothing." "Tell me, please, just the same." "Because they think me restless, they tie me up in the daytime, to make me be quiet while it is light and keep watch when night comes. At dusk I am unchained and wander about wherever I please." "Come now, suppose you want to go away somewhere, are you allowed to do so?" "Why no, as a matter of fact, I'm not." "Well, Dog, go on enjoying the things you praise; I don't choose to be a king if I can't be free to please myself."

A crucial initial observation to be made is that the moral expressed by the wolf in the last sentence of the second fable ("I don't choose to be a king if I can't be free to please myself") directly addresses the issue of kingship. It is also a statement reminiscent of the sombre expression attributed to the 'wolfish' (cf. Gk. λύσσα [from λύκος 'wolf']) warrior Heracles in Pindar's fr. 169 (concerning the so-called enigma of kingship: "For it is better to die when possessions are being seized than to be a coward"). Hence, issues of priesthood (= the lamb as the sacrificial victim of the priest) and kingship (= the dog/wolf as king) can be considered inherent in the fables according to their classical rendering.

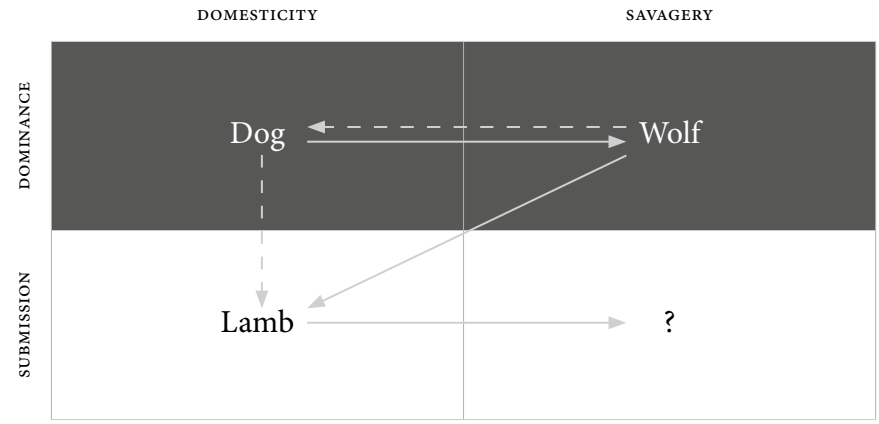
4 A synthetic rendering of the fables

A preliminary synthetic representation of the two fables in regard to the tensions between the three actors might be represented as in Figure 1.

What immediate conclusions can be drawn from this graph? There are three kinds of animals involved, one of which is not domesticated; collectively, they represent what in phonetics is sometimes referred to as a bundle of distinctive features: the wolf does not want to be a dog and seeks to devour the lamb, the dog used to be a wolf and seeks to protect the lamb. The dog can thus be positively contrasted with the lamb in the sense that the lamb depends on it for its protection. Hence, the wolf can be said to exist in contradistinction to the lamb and the dog, just as the dog exists in contradistinction to the wolf and the lamb, and the lamb to the dog and the wolf in their respective capacities as protecting and rapacious canines.

There are also references to a priest and a king in the fables. The priest is the preferable killer of the lamb (at least from the lamb's perspective), whereas the king is the kind of sovereign the wolf does not want to become at the cost of its natural desire for freedom. But what about the empty slot? Could we think of it, perhaps, as being reserved for someone who has been expelled from the domestic sphere, becoming once more a creature of the wilderness? The semi-human, pre-

FIGURE 1. A synthetic representation of the two fables. Potential transfers between the parametric slots (the wolf turning into a dog, the wolf devouring the lamb, etc.) are indicated with negatively coded (dashed) and positively coded (solid) arrows.



ternatural figure of the outlaw, the ostracised member of the in-group, the wandering priest, etc. It could be conceived as a slot reserved for someone considered socially dead, who deserves punishment, or has lost all sense of dignity.

And yet, there is also a wilderness into which one may venture voluntarily, and from which one may eventually hope to return according to certain pre-established principles of periodicity. This transfer accords with the logic of lupine symbolism long associated with the IE *Männerbund/Jugendbund* institution (cf. Das & Meiser 2002). It is a pattern perhaps most conclusively preserved in the legend of Remus and Romulus according to Ovid's *Fasti* as well as in the ancient cultic traditions of the regions of Arcadia and Argolis involving human sacrifice and men's transformation into wolves (cf. Burkert 1983: 83–134). In a new study, Birgit Anette Olsen (fc.) has brilliantly taken stock of this archaic institution by clarifying the semantics of the IE deverbative nouns **(s)kor(hₓ)i̯os* ('youthful war band' < 'host, army') and **u̯l̥ḱʷos* ('a marauding, rapacious one' < 'wolf') as well as by emphasizing the inherited formulaic nature of the legal pronouncement Hitt. UR.BAR.RA-*aš ki-iš-ta-at* ≈ Ved. *vr̥ḱo hí ṣáḥ* ("[for] *x* has become/is a wolf").[3]

The following IE onomastic features can be used to illustrate the ways in which a potentially positive aspect of a chief's wolfish persona survived among IE groups, perhaps in reference to an earlier phase in their career as members of a *Männerbund/Jugendbund*:

Run. *Hlewagastiz*[4] = Serb. *Slavogost* ≈ Gk. Κλεόξενος 'Guest of honour/Having famous guests'
PGmc. **Harjagastiz* 'Guest of the war band'
PGmc. **Harjawulfaz* (< PIE **[s]kor[hₓ]i̯o-u̯l̥ḱʷos* [?]) 'Wolf of the war band'
PGmc. **Haþuwulfaz* = Eburonic *Catuvolcus* 'Battle wolf' (?)[5]
PGmc. **Hlūþawulfaz* ≈ Serb. *Vlъkoslavъ* 'Famous wolf' (cf. Loma 2020: 20)
PGmc. **Hlūþaharjaz* ≈ Gk. Κλεόμαχος 'Battle-famed'

3 A similar legal pronouncement *wargus sit*, albeit involving an etymologically unrelated yet semantically associated lexeme (see below), occurs in the medieval Germanic Salic and Ripuarian laws.

4 A different interpretation of the first member (viz. as belonging to Old Norse *hlé* 'protection') is also possible (quasi 'providing protection for the guest' or similar); see most recently Nedoma (2022).

5 Though superficially suggestive, an etymological match between PGmc. *-wulfaz* and Eburonic *-volcus* can only be posited at the cost of numerous aberrations from the rules of expected sound change (Anders Jørgensen, p.c.), but see Hughes (2012).

In coming back to the negative aspects of the wolf, I call attention to the two overlapping deverbative nouns first discussed in a paper by Jaan Puhvel (1986), "Who were the *hurkilas pesnes*?". Puhvel relies here in part on evidence already laid out by Calvert Watkins in an equally groundbreaking paper (Watkins 1975). As can be concluded from these studies, there is comparative textual evidence to support (1) the existence of two verbal roots, PIE **h₁erĝʰ-*/**h₂u̯erĝʰ-* (cf. LIV **h₁erĝʰ-* [IEW 328] and **u̯erĝʰ* [IEW 1154–1155]), referring to the culturally associated acts of bestial copulation (cf. Hitt. *ark-* 'to mount, copulate,' Gk. ὀρχέομαι 'to dance [lasciviously]' < 'to perform coital motions') and punitive strangulation (cf. Hitt. *hurkel* 'hanging matter,' Anglo-Latin *wargus* 'outlaw, criminal [> wolf]'); and (2) the idea that the male passive subject of such acts (the **h₁órĝʰos* [≈ 'fucked one'] or **h₂u̯órĝʰos* [≈ 'strangled one']) typically denotes someone deserving or being subjected to punishment, whereas the active (virile or strangulating) aggressor (the **h₁orĝʰós* or **h₂u̯orĝʰós*) rather stands free of charge. The two nouns are not just unisonant, but also express notions that tend to overlap in non-trivial cultural terms. Gmc. **wargaz* originally meant 'outlaw, criminal', but eventually acquired the additional sense 'wolf' in Germanic. Still, as the Hittite example shows, the *hurkilas pesnes* ('men of strangulation') in the semi-legal text discussed by Puhvel are already associated with the attempted catching of wolves. As for the long-term association of the two nouns, consider the Old Norse curse-formula *argr goðvargr* once used as an insult against a missionary in a verse ascribed to the 10th-century skald Þorvaldr veili.

5 Outlaws and prostitutes

Another set of interdependent notions should be briefly considered before the cultural message of the dog–lamb–wolf bundle of distinctive features can be considered sufficiently complete. These notions can likewise be seen to shift in purport as they circulate within the model.

Tacitus famously reports (*Germania* 12) how the ancient Germanic laws prescribe "cowardly, unwarlike, and bodily heinous persons" (*ignavos et imbelles et corpore infames*) to be sunk into the mud of the marshes and covered with hurdles. It deserves notice in this regard that the expression *corpore infamis* could still be applied to a prostitute (or she-wolf) in late colloquial Latin: *prostibulum* ***lupa****; quae pretio corpus vulgat cum quoque;* ***corpore infamis***.[6] As suggested by

6 Weber (1745): s.v. *lupa* = "jedermans Hure".

this admittedly very late example, the significance of corporeal infamy may have acquired a decisively different sense when ascribed to females instead of males.

There is a cruel irony in the fact that prostitutes were the only women in the Graeco-Roman world who had a chance of independently accumulating wealth for themselves (no matter how minimal their chances of success; cf. Pomeroy 1995). A married wife depended completely on her husband and was considered his sexual property. Her only economic security – and the only thing distinguishing her from a concubine – was the dowry, which her husband would have to pay back to her family should he want to divorce her. The relation between a husband and his wife (or his concubine) is thus vaguely suggestive of a patron–client relationship. In contrast to the concubine, however, a prostitute operating on an open market incurred corporeal infamy and wolfish traits because she belonged to none and everyone. Unlike her manly counterpart the outlaw (the *homo sacer*, *wargus*, etc.),[7] however, she legally profited from the community in which she was typically treated as an outcast. The Roman case of Acca Larentia (see below) is indicative of how this precarious condition could be positively reimagined – according to a logic similar to the wolfish *Jugendbündler*'s socio-political incorporation – as a she-wolf's potential ascent to the royal status of a patroness.

It should be added in this context that the prostitute is not just recurrently perceived as a she-wolf, but is also closely associated with dogs and the apotropaic killing of dogs as a source of pollution (cf. the Vedic example below).

6 Completing the exercise

Figure 2 is an elaboration of the first graph with further arrows added to indicate potential transfers between the parametric slots, and with new symbolic associations added to the roles of the three animals involved.

There is a light and a dark side to everything in this graph. In the upper left part of the register, the king appears in his role as a shepherd of his people, as a host and a patron in times of peace and prosperity. In the upper right part, he appears instead in his role as a fierce warrior who violently enslaves and expropriates neighbouring tribes, punishes the transgressor (the violent aspect of the law), and induces potential social collapse. One is reminded here of the duplex

7 The notion of the 'sacred man' (in the sense of being accursed and execrable) is a recurrent trope in archaic Roman and Germanic legal traditions.

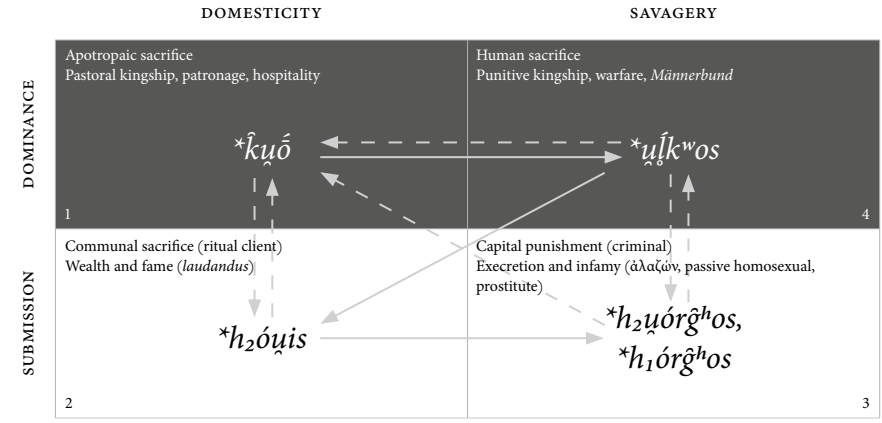


FIGURE 2. Potential transfers and symbolic associations between the slots. Negatively coded transfers are indicated with dashed arrows, positively coded transfers with solid arrows.

character of Dumézil's first function to include sovereignty both in its positive, judicial sense of kingship, and in its dark, coercive sense of sorcery. As a slight modification to this sense of contrast, it should be added that the chief can in fact receive the poet's glory both in his role as a peaceful protector and benefactor of the in-group (cf. the dithematic name *Hlewagastiz* 'fame-guest') and in his role as a fierce and wolfish figure on the battlefield (cf. **Hlūƀawulfaz* ≈ Serb. *Vlьkoslavъ* 'famous wolf'). A similar logic pertains to the priestly/ritual function in the lower left and right slots in the sense that the priest (or ritual specialist) may either represent a respected member of the community, or a less respectable entrepreneurial figure (cf. Gk. ἀλαζών 'vagrant') acting as a free player on an open ritual market. To roam as a poet-sacrificer without a patron's support is a precarious situation for which we have good evidence in Old Iranian and Old Indic sources, reflecting back on a period in Indo-Iranian prehistory in which a well-established priestly class did not yet exist, but rather groups of competing ritual specialists.

Various forms of killing can be linked to the four parameters:

1 Apotropaic sacrifice – e.g., the festival known as Gk. κυνοφόντις and the slaying of a dog in the course of the Vedic horse sacrifice (see below)
2 Communal sacrifice
3 Capital punishment
4 Human sacrifice

The last category holds a special place in the register, because it may potentially induce a return to savagery as a consequence of pollution and moral transgression (cf. Bremmer 2007). There is ample evidence for this in Greek tragedy.

1 Dog (apotropaic sacrifice)
2 Lamb (communal sacrifice)
3 Outlaw (death penalty)
4 Wolf (human sacrifice)

I am adding the following excerpts from a selection of Vedic, Greek, and Roman sources in order to illustrate how the four parameters can be understood to intersect:

1 → 4 The myth of Lycaon

Plato, in *Republic*, expounds on the traditional story of the Arcadian king Lycaon as a means to address the dangers of kingship:

> What, then, is the starting-point of the transformation of a protector [προστάτης] into a tyrant? […] The story [of the shrine of Lycaean Zeus in Arcadia] goes that he who tastes of the one bit of human entrails minced up with those of other victims is inevitably transformed into a wolf. […] [I]s it not true that in like manner a leader of the people who, getting control of a docile mob, does not withhold his hand from the shedding of tribal blood […]? [I]s it not the inevitable consequence and a decree of fate that such a one be either slain by his enemies or become a tyrant and be transformed from a man into a wolf? (*Rep.* 565d-565e; trans. Shorey)

2 → 3 Expulsion of the ἀλαζών

Aristophanes (*Pax* 1039ff.) provides a derisive portrayal of the diviner Hierocles, who arrives out of the blue to meddle with a sacrifice to the goddess Eirene ('Peace'). Hierocles is supposedly attracted by the odour of fat, engages in all sorts of ritual quiddities with the patron, and is eventually driven off with a stick – without a share in the 'inward parts' (σπλάγχνον in 1012) – as a sign of final relief. Hierocles is depicted here in the typical terms of a 'travelling charlatan' (ἀλαζών in 1120). An almost identical scene occurs in *Birds* 848–1047.

Consider also the following allusion in RV 8.14.14 to a group of legendary Dasyus who are supposed to have used their deceitful sorcery (*māyā́-*) in order to conquer heaven:

> They who, through their viles [*māyā́bhir*], were trying to creep [*utsísr̥psata* (√*sarp*)] up and mount to heaven, Indra, those Dasyus did you send tumbling down. (RV 8.14.14)

2 → 3 "Go to hell, whore!"

The poet and playwright Philemon (3rd–2nd c. BCE) is quoted by Athenaeus as saying:

> The door is open. One obol:[8] enter straight: there's no prudery, no trifle, no insinuations: but as straightforward as you like, in whatever way you like. You go out: tell her to go to hell [οἰμώζειν λέγε (cf. Ar., Pl. 58)]. She's a stranger [ἀλλοτρία] to you. (Philemon *apud* Athenaeus *Deipn.* 13.25 569e–f)

3 → 4 The myth of Acca Larentia and/as the suckling she-wolf

The legend of Acca Larentia is reported (with minor variations) as follows by Livy and Valerius Antias (cf. Howard 1906). The social transformation of Acca Larentia affords a few interesting parallels with Pindar's mercenary muse according to Leslie Kurke's analysis (1991: 240-256).

> [A] she-wolf, coming down out of the surrounding hills to slake her thirst, turned her steps towards the cry of the infants [Remus and Romulus], and with her teats gave them suck so gently, that the keeper of the royal flock found her licking them with her tongue. Tradition assigns to this man the name of Faustulus, and adds that he carried the twins [Remus and Romulus] to his hut and gave them to his wife Larentia to rear. Some think that Larentia, having been free with her favours, had got the name of 'she-wolf' among the shepherds, and that this gave rise to this marvellous story. (Livy 1.4.6ff.; trans. Heinemann)

> But Acca Larentia was a public prostitute and by that trade had earned a great deal of money. In her will she made king Romulus heir to her property […]; according to some others, the Roman people. Because of that favour public sacrifice was offered to her by the priest of Quirinus and a day was consecrated to her memory in the Calendar. (Valerius Antias *apud* Aulus Gellius 7.7.1; trans. Rolfe)

8 An obol in classical Athens purchased approximately 3 litres of wine.

The Roman legend has a few striking features in common with the so far poorly investigated ethnogonic myth of the Gökturks (cf. Golden 2018). Consider, especially, the following passage recorded in the Chinese 7th-century chronicle *Zhoushu* ("Book of the [Northern] Zhou"; 50.907–08): "Then the she-wolf hid in the mountains. Here, she gave birth to ten sons. When they grew up, they went out of the cave and married women from the outside" (Golden 2018: 299). Apart from recalling the legend of Remus and Romulus, this passage bears a striking resemblance to the mythological beginning of the Old Hittite Zalpa-text (KBo 22.2) with its now convincingly uncovered reference to a male collective of wolves/wolfish marauders (cf. Olsen fc.): "The queen of Kaniš bore thirty sons within one year. She (speaks) thus: 'What kind of *u̯a-al-ku-an* [< **u̯elkʷ-* (?) 'maraud, plunder' → **u̯l̥̂kʷos*] did I give birth to?'" While the Turkic peoples of Central Asia must have shared both a past and cultural characteristics with various Indo-European (Tocharian and Iranian) groups in that same region, it is conceivable that they also shared with them certain ethnogonic notions about themselves.

3 → 1 A prostitute's son apotropaically killing a dog in royal sacrifice

According to the Vedic ritual manual *Āpastambha Śrautasūtra* (20.3.11), an apotropaic phase in the royal horse sacrifice (*aśvamedha*) contains a four-eyed(!) dog being led by a prostitute's son into a body of water. At a given moment, when the dog loses its footing, the Advaryu priest orders the prostitute's son to "slay" (*jahî*) the dog.

The root √*han* is used here (and elsewhere) as a term for the justified slaying of foes or the unjustified slaying of friends, but not for the proper sacrificial killing of cattle. The same applies to the so-called βουφόνια 'ox-slayings' celebrated during the midsummer festival of Dipolieia in Athens. The ritual slaughter was apparently not seen as a regular bovine sacrifice in that it contained numerous acts to make it appear rather as ritualized crime. In the Vedic example above, the killing of a dog in the sacrificial context of a king consolidating his role as a protector of his people (cf. Plato's προστάτης above) also involves apotropaic concerns, such as keeping the community safe from pollution and intrusion. The dog could apparently be evoked both in its symbolic function as a guardian and loyal servant, and in its very opposite role as a source of pollution.

Dogs were apotropaically killed on a regular basis during the ancient Argive festival of Ἀρνηΐδες ἡμέραι 'days of the lamb', which is sometimes referred to as the κυνοφόντις (ἑορτή) 'dog-slaying (festival)' (Burkert 1983: 107).

7 Concluding Remarks

I should like to end this exercise by indicating a few preliminary conclusions to be drawn from it. By taking my cue from two simple Aesopian fables, I have ended up with a rather complex representation of contrastive slots with a horizontal tension between domesticity and savagery, and a vertical tension between dominance and submission.

The first parametric slot focuses on the pastoral obligations of kingship, including the king's apotropaic concern with keeping the community safe from pollution and intrusion.

The second slot focuses on the merits of hospitality and patronage, including the happy outcome of communal feasting and other advantages of royal protection, as well as on the sacrificial animal representing the quintessential gift of atonement (a figure of thought still clearly manifest in Christian liturgy).

The third slot focuses on crime, deception, prostitution, and other potentially corrosive and polluting activities understood to deserve exclusion, loss of dignity, and death.

Finally, the fourth slot focuses on the punitive and martial obligations of the wolfish king, who in his capacity as a sovereign potentially threatens to disrupt the social order in his indeterminate state of exception (cf. Agamben 1995). The wolfish king and the beastly outcast can be claimed to occupy the same savage region – the same extra-legal space – through which they are also seen to variously attract and repel each other.

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On the prehistory of legal language and procedure

Repairing a misdeed in Proto-Indo-European and in Core Indo-European

Calvert Watkins *in memoriam*

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In the ancient IE traditions, the repair of a misdeed is conceptualized in two ways:

(1) 'to *make good* the misdeed' (the offender or the offended) is exclusively attested in Hittite (and may be traced back to PIE): the offender 'repairs' (*šarni(n)k-*^{mi}), or 'gives a reparation' (*šarnikzil- pai-*^{ḫḫi}), or 'expiates' (*šarni(n)k-* with telicizing particles) his misdeed, whereas (b) the offended 'repairs' (i.e. 'makes repair' : *šarni(n)k-*), or 'takes a reparation' (*šarnikzil-dā-*^{ḫḫi}), or 'avenges' (*šanḫ-*^{mi} with telicizing particles) the other's misdeed. This conceptualization lives on in Old Latin (*noxiam sarcīre*, like Hitt. *nakkuš šarni(n)k-*, remodelled as *poenam soluere*) and residually, limited to the reparation by the misdoer, in Greek (βλάβην ἐξιᾶσθαι 'to heal the damage') and some Germanic languages.

(2) 'to atone (**kʷeḭ-*) the misdeed' (*sc.* the offender) as against 'to make pay it' (*sc.* the offended), as attested in Avestan (YAv. *cikaiia-*^{ti} 'to atone' vs *kaiiaiia-*^{te} 'to make expiate'; Ved. *cáy-a-*^{te} 'to punish') and in Greek (τίνειν, τεῖσαι vs. τίνεσθαι, τείσασθαι). The collocation lives on, with lexical renewal in Latin (*luere*, *soluere*) and in other Core IE languages, but not in Anatolian: it may therefore be traced back to Core IE.

By contrast, the exacting of reparation as 'to seek the misdeed' (Hitt. *kattaṷātar šanḫ-*, OLat. *parricidi quaestores* …), being residual as against 'to seek a reparation', may be traced back to PIE.

1 It is a pleasant duty to express my gratitude to Hannes Fellner (Wien), Velizar Sadovski (Wien) and Ana Vegas Sansalvador (Köln) for indications and comments, and especially to Riccardo Ginevra (Milano, Università Cattolica) and Craig H. Melchert (North Carolina), as well as Stefan Höfler (Wien), and Birgit Anette Olsen (København), who read the final version, for their suggestions and criticism. Standard works and editions are quoted according to the current conventions. Vedic translations are taken from (or rely on) Jamison and Brereton (2014).

The juridical terminology, as attested in legal texts or reflected in titles of officials in the oldest Indo-European (IE) traditions and, indirectly, in their phraseology, allows us to identify a series of cultural conceptions and social values which underlie the procedures in the form as they occur in the written records. These conceptions have certainly been codified as legal terminology first in the individual languages, but may be considered as inherited in view of the striking coincidences, both conceptual and even formal, between different traditions as the reflex of their social structures.

Legal terms and phraseology, as attested in the ancient IE languages, do indeed reflect conceptualizations of matters, which may differ from each other, and ultimately be inherited and even traced back to different prehistorical layers, with the help of comparison and linguistic reconstruction. This is the case of the conceptualization of the reparation of a misdeed in its twofold dimension, as the expiation by the misdoer or the obtainment of a compensation by the offended, and as the seeking of redress by the latter. The expression of the reparation of a misdeed by the misdoer has proven to be inherited on the strength of the correspondences between the Latin *actiones noxales* in the formulation *aut noxiam sarcire aut noxae dedere* 'to repair the damage done and to surrender (*sc.* the offender) for damage' and the corresponding regulation for compensatory restitution as the alternative to the surrender of the offender in Hittite, as it has been shown in the illuminating analysis by Calvert Watkins (1970). On the other hand, the conceptualization of the exacting of a reparation as 'seeking the misdeed' is recognizable in institutions of power and social prestige like the Roman *quaestor* 'inquirer', and especially the *parricidi quaestores* (Fest.), as persuasively pointed out by Émile Benveniste (1969), or the Athenian ζητηταί. The conceptualization of the reparation of a misdeed (by its author or by the one who suffered it) in the different languages allows us to state some striking coincidences, which may point to a common Proto-Indo-European (PIE) origin, as is the case for 'to exact reparation', and some differences, equally striking, which point to the existence of, at least, two different phases in the evolution from PIE to the Core IE languages.

The present contribution tries to take one more step on the path of Watkins' analysis and will make the case for two different conceptualizations of the reparation of a misdeed, both by the misdoer and by the offended: one of them, [REPAIR, MAKE GOOD – MISDEED], may be traced back to Proto-Indo-European as it is attested in Hittite and lives on in Latin, in Greek, and in other languages; whereas a conceptualization as [PAY (i.e. 'atone') – MISDEED], which is absent in Hittite, is

Meaning	**Hittite**	**Latin**	**Greek**	**Indo-Iranian**
	(1) [OFFENDER – REPAIR – MISDEED]			
MAKE GOOD	*šarnink-*^{mi}	*sarcīre*, (*ex*)*piāre*	ἐξιᾶσθαι	
PAY		*luere*	τίνειν (**k*^{w}*eḭ-* active)	Av. *cikaiia-*^{ti}… (**k*^{w}*eḭ-* active)
EXPIATE	*šarnink-*^{mi} + particle			
	(2) [OFFENDED – REPAIR – MISDEED]			
MAKE GOOD	*šarnink-*^{mi}	*sarcīre* / *uindicāre* …		
AVENGE	*šanḫ-*^{mi} + particle	*uindicāre* …	τιμωρεῖσθαι	
MAKE PAY			τίνεσθαι (**k*^{w}*eḭ-* middle)	Ved. *cáya-*^{te}… (**k*^{w}*eḭ-* middle)
	(3) [OFFENDED – SEEK – MISDEED]			
SEEK	*šanḫ-*^{mi}	*quaerere* …	Ζητήρ (**i̯eh*$_2$-)	Ved. *ṛṇa-yā́-*, *yātár-* (**i̯eh*$_2$-)
MAKE GOOD	*šark-*^{mi}			

TABLE 1. The evidence: Hittite vs Core IE languages.

attested under different forms and to varying degrees in the remaining languages, and may therefore be traced back to Core Indo-European.

1 Repair misdeed (the offender), repair misdeed (the offended), seek misdeed

The essentials of the evidence for the expression of the conceptualization of (1) 'repair/amend/make good a misdeed' (*sc.* the misdoer), (2) 'repair/amend/make good a misdeed' (*sc.* the offended), and (3) 'seek the misdeed' (*sc.* the offended) may be set forth, for the sake of simplicity, as (1) [REPAIR – MISDEED] (*sc.* the offender), (2) [REPAIR – MISDEED] (*sc.* the offended) and (3) [SEEK – MISDEED] (*sc.* the offended). In Table 1 an attempt is made to summarize the situation in Hittite, in Latin and in Greek (also in Indo-Iranian), as prominent representatives of Core Indo-European.

A first glance at Table 1 allows us to state a neat difference between Hittite and the oldest languages of Core IE. Hittite conceptualizes REPAIR as MAKE GOOD (*šarnink-*^{mi}) in both variants: in (1) [OFFENDER – MAKE GOOD – (*his own*) MISDEED] the misdoer amends his misdeed, which in some instances is referred to as accomplished (pret.3pl. *šarninkir* 'expiated', with telicizing particle *-kan*); in (2) [OFFENDED – MAKE GOOD – (*another's*) MISDEED] the action may also be

referred to as accomplished (pret. 'he avenged'), when expressed by means of *šanḫ-* (actually 'to seek') with telicizing *anda*, *-apa*, and *-kan*, among others. This displays a sharp contrast with Indo-Iranian and Greek, where REPAIR is conceptualized as PAY (IE **k^{w}eie̯-*) with the misdeed as object, in the framework of a diathetic opposition, namely between (1) [OFFENDER – PAY$_{\text{ACTIVE}}$ – MISDEED] and (2) [OFFENDED – MAKE PAY$_{\text{MIDDLE}}$ – MISDEED]. Latin and Greek, being as they are Core IE languages, have a special position: they share with Hittite the conceptualization as [MAKE GOOD – MISDEED], albeit to varying degrees: Lat. *sarcīre* 'to mend', *resarcīre* 'id.' (and synonyms *piāre*, *expiāre*, section 11) is used for both (1) and (2), Gk. ἐξιᾶσθαι 'to heal', and ἰᾶσθαι, ἀκεῖσθαι 'id.' only for (1). The conceptualization as [MAKE GOOD – MISDEED] coexists with [PAY – MISDEED] in Latin (*luere* 'to pay', 'to expiate', also *soluere*), limited to the reparation by the misdoer, and in Greek, where active τίνειν, τεῖσαι (1) 'to pay', 'to expiate' stands in opposition to middle τίνεσθαι, τείσασθαι (2) 'to make pay', i.e. 'to avenge' (section 14).

On the other hand (3) [OFFENDED – SEEK – MISDEED], is attested in all languages, and may be understood as inherited, although SEEK is expressed by lexemes which do not occur in this collocation in more than one language, with the exception of IE **i̯eh$_2$-* 'to seek, strive for' (Ved. Av. *yā-* : Gk. ζᾱ-, Att.Ion. ζη- and IE **preĥ-* 'to ask' (Lat. *poscere* 'to demand' and OP *fraθ* 'to punish'). A special case is Hittite, where the collocation is expressed by Hitt.-Luv. *šark-* in some nominal forms with the sense 'to seek redress' (as against *šarnink-* in (1) and (2)), as well as by *šanḫ-* 'to exact, seek' (without particle).

2 Hitt. *šarni(n)k-^{mi}* beside *šarnikzil pai-^{ḫḫi}* and *šarnikzil dā-^{ḫḫi}*

Let us turn to the Hittite evidence for (1) [OFFENDER – MAKE GOOD – MISDEED] and (2) [OFFENDED – MAKE GOOD – MISDEED] with their variants, and (3) [OFFENDED – SEEK – MISDEED].

It may be stressed that in both (1) and (2) the collocation with *šarni(n)k-^{mi}* (and *šarni(n)kišk-^{mi}*) 'to repair' (originally 'to make whole') may coexist with the periphrases *šarnikzil pai-^{ḫḫi}* 'to give (also 'to pay') a reparation' and *šarnikzil dā-^{ḫḫi}* 'to take a reparation', respectively, which rely on a secondary remodeling of the basic pattern (section 8). On the other hand, MISDEED is expressed by a series of terms, which may occur in more than one of the collocations, namely *nakkuš-* 'damage, fault' in (1), *ēšḫar* 'blood (*sc.* of the victim)' as a concretization of 'crime, damage, injustice' or *kattaṷāttar* '(legal) grounds for a quarrel,

complaint'[2] in all three, *AWAT* (: *uttar*) 'an affair (of blood)' in (3), as well as *šarnikzil-* 'reparation'.[3]

The existence of a twofold reading of *šarni(n)k-* 'to make good', depending on who is the agent, is recognizable in the abstract *šarnikzil-* 'compensation' which may be both (1) given (*pai-ḫḫi*) by the offender (to the offended), or (2) taken (*dā-ḫḫi*) by the offended, or even remain unclear or ambiguous:[4]

Ad (1) cf. KUB 13.9 ii 3 *mān ēšḫanašš⸗a kuiški šarnikzil piia̯n ḫarzi* "and if someone has also given (i.e. paid) compensation for homicide …" (protocol, MH/NS).

Ad (2) cf. KBo 2.6 i 43–46 ^{d}UTU-*ŠI⸗ia̯⸗z parkunuzzi šarnikzela* (var. [*šarni*]*kzel*$^{HI.A}$) *SA È-TI* ME-*anzi* "his Majesty will also purify himself and they will take (ME-*anzi*) the compensation for (his) house" (oracle question, NH).

The same applies to *šarninkuu̯ar* 'compensation', with 'gerundival' gen. *šarninkuu̯aš* 'for compensation', e.g. KBo 2.2 iii 33–36 *kuiš IKRIBU šarninkuu̯aš* (coll.) *n⸗an šarninkanzi UL⸗ma kuis šarninkuu̯aš* (?, coll.) *nu⸗šši zankila*[*tar* SUM-*anzi* "what vow is subject to compensation, they will pay compensation for it. And what vow is not subject to compensation, [they shall pay: SUM-] a penalty (*zankilatar*) to him" (oracle question, NH). Only the context makes clear that it is the offenders who have to 'make good' (*šarninkanzi*) the compensation.[5]

3 Hitt. *šarni(n)k-^{mi}* 'to repair' (the offender) and 'to expiate' (with telicizing particles)

The essentials of the evidence for the three collocations and their variants may be set forth as follows.

2 Melchert (1979: 268–270): "not 'revenge', but the object of revenge", "cause of/grounds for vengeance", "not 'retribution', but that for which retribution is demanded", "grounds for quarrel, i.e. for retaliation", "grounds for a fight". Hitt. *kattau̯ātar*, which relies on **kattu-*/**kattau̯-* 'hostile, evil', and neuter 'enmity' (PIE **ǩót-u-*) has an *aequabile* in Gk. κότος (PIE **ǩót-o-*), as their collocations show (García Ramón 2020).

3 Also *šarnikzel … šarninkišk-* (frequent in legal texts: *CHD* 279–280). On the word formation cf. Rieken (1999: 482–483).

4 Both possibilities may be assumed in the formula *šarnikzil* NU.GÁL "there shall be no compensation" in legal texts (once without negation in KBo 6.26 I 22–27 *Laws*).

5 Ptc. *šarninkant-* 'arranged' (e.g. *mān⸗ma⸗aš parā šarninkanza* "if it (*sc.* the festival) is, however, fully arranged" KUB 16.66 obv. 16,30 NH) may be also active cf. *šarni*]*nkanzan⸗wa⸗za ēš* "sei ein Schadensersatzpflichtiger!" KBo 6.2 ii 54 (as per E. Neu *apud* Haase 1982: 33–34).

The collocation (1) [OFFENDER – MAKE GOOD – MISDEED] is expressed by *šarni(n)k-* (1a) 'to repair' (beside the periphrasis *šarnikzil pai-ḫḫi* 'to give reparation for (gen.)'), also (1b) 'to expiate' (preterital forms, telicizing adverbs and/or particles):

1a 'to repair'

… *nakkuš n=at* [*šarnik*]*za* (KBo 6.2 iv 53–55)
(whatever perished in the house … it is) damage, he shall make compensation for it (var. *UL šarnikzi*, *Leges* §98, v.l. OS)

kurim[*ma*]*š dam*[*me*]*šḫandaš antuḫšaš kattaụāttar zik=*[*pat*] DUTU-*uš šarni(n)kiškiši* (ABoT 44 i 36–38, MH/NS)
You, the Sun-god, make good the complaint of the bereaved and oppressed man (Melchert 1979: 269)

šarnikzel maškann=a KUR-*e šer šarninkiškimi* (*Murs.* 1 rev. 19–20)
I will repair (*sc.* 'to you … my lords') reparation and atonement for the country ("ich werde [euch … meinen Herren] Ersatz und Sühne wegen des Landes leisten"; tr. Goetze)[6]

The periphrasis *ēšḫanaš šarnikzil pai-ḫḫi* expresses the same state of affairs as **ēšḫar šarni(n)k-*:

mān ēšḫanašš=a kuiški šarnikzil piịan ḫarzi (KUB 13.9 ii 3, protocol, MH/NS)
… and if someone has also given reparation for blood(shed)

It must be noted that, although Hitt. *pai-ḫḫi* 'to give' (like *kuššaniạ-mi* 'to hire') is also used for 'to pay' in the periphrasis *šarnikzil pai-ḫḫi* 'to pay a compensation', the collocation [PAY – MISDEED], as attested in Indo-Iranian and Greek, among other languages, is different, and actually not attested in Hittite.[7]

6 Cf. also KUB 14.14 rev. 13–14 *n=at ammuqq=a IŠTU* É-*TI=YA šarnikzilaz maškanna*[*z=iịa*] *šarnenkiškimi*. "I too will begin to make compensation for it (i.e. the blood guilt for Tudḫaliya) with compensation and a propitiatory gift from my household."

7 Lycian *ttl*(*e*)*i-* 'to pay (a fine)', probably a denominative of **tille-* 'payment' (**kʷ*(*e*)*i-dʰlo-* cf. Serangeli 2018: 188–189; Sasseville 2020: 238–239) beside reduplicated *tti-* 'pay' (**kʷi-kʷi-*), reflects the concrete sense of the verb, with indication of a material fine as its object, e.g. TL 102.2ff. *me ttleiti puwa : aitāta : aῆmāma : qebelija : ēni : qlahi :*

1b 'to expiate'

nu=kan ^{m}*Dudḫaliiaṇ kueš kuennir nu ēšḫar apūš šarninkir* (KUB 14.14 rev. 9, ritual against the pest, NH/NS)
… those who killed Tudḫaliya had expiated his blood(sin) (Tudḫaliya is already dead)

The specific sense 'to expiate' is recognizable as the expression of the fulfillment of the action, by means of the preterite (3pl. *šarninkir*) with the particle *-kan*, which explicitely telicizes *šarnink-*.

4 Hitt. *šarni(n)k-^{mi}* 'to make repair' (the offended) and *šanḫ-^{mi}* (with telicizing particles) 'to avenge'

The collocation (2) [OFFENDED – MAKE GOOD – MISDEED] has two variants, expressed by means of (2a) *šarni(n)k-* 'to make repair' (beside periphrasis *šarnikzil dā-ḫḫi* 'to take reparation'), and (2b) *šanḫ-* 'to avenge' (mostly preterital forms and/or with telicizing adverbs and/or particles) with *ēšḫar* 'blood' as object, also with *AWAT* (: *uttar*) 'affair'. This is a special use of Hitt. *šanḫ-*, which in its usual sense 'to seek, search' (non-telic) is constitutive in the collocation (3) [SEEK – MISDEED] (section 5).

2a 'to make repair'

[*mān Š*]*A* ^{m}*Piiaššili U* ^{m}*Ḫaittili* [*ēšḫar*] *šarninkuuanzi šanḫeškiši* [*nu KIN(?) N*]*U*.SIG$_5$-*du* N]U.SIG$_5$ § [*nu* DINGIR-*LU*]*M ēšḫar=pat šarninkuuanzi šanḫeškiši* (KUB 16.77 iii 5–8, oracle question, NH)
if you, (O deity), keep seeking (*šanḫeškiši*) to get compensation (*šarninkuuanzi*) for [the blood (*ēšḫar*)] of Piyaššili and Ḫaitili, let [the KIN(?) oracle] be unfavorable. § [(If), O go]d you keep seeking to get compensation for the murder only

The deity is seeking (2sg. *šanḫeškiši*) to make good (infinitive *šarninkuuanzi*) his own claim, i.e. to receive compensation for the murder (*ēšḫar*) of Piyaššili and Ḫaitili: *ešḫar šarnink-* is the object of *šanḫ-* 'to seek' in this text.

ebij[*e*]*hi pñtreñni* "(falls jemand drinnen irgendeinen (Toten) darauflegt), werden acht *qebelija* Ziegen? als Bußgabe für die Mutter des hiesigen Heiligtums von *Pñtre*? bezahlt" (Serangeli 2018: 188).

As to the periphrasis with 'take' (ME-), cf. KBo 2.6 i 43–46 ^{d}UTU-*ŠI*⸗*i̯a*⸗*z parkunuzzi šarnikzela* (var. [*šarni*]*kzel*$^{ḪI.A}$) *SA È-TI* ME-*anzi* "his Majesty will also purify himself and they will take (ME-*anzi*) the compensation for (his) house" (oracle question, NH).

2b 'to avenge'

n⸗*apa* DINGIR.MEŠ ^{I}*P*]*išeni̯aš išḫar šanḫer* (KBo 3.1 rev. i 66, Telipinu, OH/NS)
… the gods avenged the blood (: death) of Pišenis

n⸗*apa* DINGIR.MEŠ *at*[(*taš*⸗*šaš* ^{m}*Zidantaš*)] *ēšḫar*⸗*šet šanḫer* (KUB 11.1 ii 4–5, OH/NS, with duplicate KUB 11.6 i 3–4c)
the gods avenged the blood (: death) of Zidanta, his father

nu⸗*za ŠA ABI*⸗*ŠU* [*ēšḫar* (?) EG]IR-*an šanaḫta* (KBo 3.57 obv. 10–11)
and he (Mursili I) avenged [the blood?] of his father

Note the contrast with the construction with the present:

DINGIR.MEŠ *BĒLŪ*^{MEŠ}⸗YA *ŠA* ^{m}*Dudḫalii̯a kuit ēšḫar* EGIR-*an šanḫat*[*teni* (KUB 14.14 rev. 9, ritual against the pest, NH/NS)
O gods, my lords! Why are you still avenging the blood of Tudḫaliya? (NB: Tudḫaliya is already dead)

nu⸗*kan uu̯atten* DINGIR.M[EŠ EN.MEŠ⸗*YA*] *apūn AWAT* ^{m}*Tudḫalii̯a* TUR-*RI ANA ABI*⸗*YA kinun appezz*[*i̯az*] *anda šanḫatten* (KUB 14.14 obv. 32–34, Plague prayer of Muršiliš II, NH)
You came, O god[s, my lords], and now at last avenged that affair of Tudḫaliya the Younger on my father

An interpretation of pret. *šanḫer*, *šanḫt*(*a*) vs. pres. *šanḫat*[*teni*, *šanḫatten* with particle and/or adverb in the passages above as 'sought reparation' (or 'revenge', *sc.* 'of the blood' of Piseniš, Zidanta or Tudḫaliya) is impossible, as all three are already dead at the narration time. This construction of *šanḫ-* with *ēšḫar* is a phraseological one, and totally different from those with *akk/ggatar* 'death' or *ḫinkan* 'id.' (of the enemy), i.e. 'to seek/plan the enemy's death'.[8]

8 For instance, KUB 33.106 iii 33–4 (Ullikummi, OH) *nu* ^{d}*Kumarbiš ārušuu̯aru*⸗*pat kuit*

In conclusion, in the construction with adverbs (*anda*, EGIR-*an* : *appan*) and/or telicizing particles (*-apa*, perhaps *anda … -kan* in Neo-Hittite), *šanḫ-* is lexicalized as a telic pret. 'avenged', as the expression of the full achievement of [MAKE GOOD – MISDEED]. This is not invalidated by a unique instance of *šanḫ-* 'to avenge' without a local particle, namely impv. *šanḫa* 'avenge!' (KBo 3.23 i 19 *zig=a* SAG.GÉME.ÌR.MEŠ *ēšḫar=šemit šanḫa* "avenge the blood of (your) subjects!"), which displays the transitive semantics of imperative and directive expressions.[9] The telicizing adverbs and particles,[10] attested mostly with preterital forms (3sg. *šanḫt(a)*, pl. *šanḫir …*) with *ēšḫar* 'blood', *AWAT* [: *uttar*] 'affair', undo the imperfective force of Hitt. *šanḫ-* 'to seek', actually a lexicalization of the PIE present stem **sḛ-n-h₂-* 'is seeking, trying to reach' of **senh₂-* 'to reach, attain',[11] which displays the inherited telic character of the verb. In contrast, *šanḫ-* without particle means 'to seek, search for', as attested in other collocations (section 5).

5 Hitt. *šanḫ-^{mi}* 'to seek misdeed (: reparation)'

The collocation (3) [OFFENDED – SEEK – MISDEED], meaning 'to exact the reparation' for a misdeed or grievance the offended has suffered is expressed by means of (3a) *šanḫ-* 'to seek' (the common sense of the verb proper)[12] with *kattaṷātar* 'ground for retaliation', also in the periphrasis with *šarnikzel* 'compensation', and (3b) some nominal(ized) appellatives or names formed from *šark-* (not *šarnink-*, i.e. the non-infixed variant of the same lexeme (section 6). Two instances of (3a):

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^{d}U-*ni* IGI-*anda aggatar šanḫeškizzi* "… Kumarbi really seeks the death of the storm god", KUB 14.1 obv. 2 (Madduwatta, MH/MS) *nu tuēl ŠA* ^{m}*Ma*[*dduṷ*]*att*[*a* ḪUL-*lu*] *ḫinkan šanḫiskit* "he (*sc.* Attarišiya) has always sought your death, Ma[dduwa]tta".

9 Among others with verbs of visual perception, with 2sg. impv. 'look!' (with subject as agent: Hitt. *a-ú*, Toch. B *pālka*, Gk. ἰδέ, Welsh *gwel*) of lexemes for 'to see' (with subject as experiencer: Hitt. *au-/u-^{ḫḫi}*, Toch. B *pälk-*, IE **ṷeid-*, **ṷel-*, respectively).

10 Craig Melchert (p.c.) points out to me the 'telicizing' effect of particles in some atelic lexemes, e.g. *š=an=ap adanzi* 'they eat up' (of alleged cannibals eating a fat person) or the standard expression *anda uemiiazzi* 'reaches' (: *ṷemiia-^{mi}* 'to meet') in the Maṣat letters (MH), cf. *maḫḫan=ta kāš tuppianza anda uemiiazzi* "when this tablet reaches you …" (HKM 14: 3–5 *et al.*).

11 García Ramón (2002: 131–133, 2020: 164–166).

12 Hitt. *šanḫ-* (without an adverb or particle) means 'to seek', not 'to avenge', also in other collocations, e.g. in the myths of disappearing deities, which are not found (*CHD* Š-164.1a), cf. VBoT 58 I 21–22 *pāer* ^{d}UTU-*un šanḫeškanzi n=an UL ṷemiianzi* "they went (and) searched for the Sungod everywhere, (but) they [did] not find him" (OH/NS).

nu=za apāš kattaụ̯ātar šanaḫzi nu apūn UKÙ-*an ANA* LUGAL *innarā kunanna pāi* (KUB 13.7 i 17–18)
he seeks the complaint for retaliation and delivers that person to the king explicitly to be killed

Hitt. *kattaụ̯ātar šanḫ-*, which has a counterpart in the collocations (1) and (2) with *kattaụ̯ātar šarnink-* (see above), is equivalent to, or even mirrors, the Akkadian phraseme *gimilan* [*a*]*na turri* 'to exact retribution, take revenge'. The collocation coexists with the periphrastic expression *šarnikzel šanḫ-*:

nu mān LIM apadda šer šarnikzel UL kuitki šanḫta (KUB 22.70 rev. 7)
and if you, O god, have sought no compensation on that account

6 Hitt.-Luv. *šark-*: human plaintiffs and vengeful demons

A few nominal forms of different types formed from *šark-* (obviously the root underlying infixed *šarni(n)k-*, regardless of how the semantics of the variants without and with *-n(in)-* works) do reflect the reading (3) 'to seek, exact' (*sc.* reparation). Their referents are both human beings (plaintiffs in the court) and vengeful deities (all Hittito-Luvian):

1 Luvoid *šarkant(i)-*, in the instructions for the Royal Bodyguards (MH/MS; IBoT I 36, eds. Guterbock & van den Hout 1991), where it occurs repeatedly, refers to participants in a process in the king's justice court. Their precise status remains a matter of discussion,[13] but an interpretation of *šarkant(i)-* as 'plaintiff' ("petitioner, person seeking redress", Melchert 1996: 135), i.e. as connected with *šarni(n)k-*,[14] fits perfectly into the contexts where the term appears, e.g.

m[*ā*]*n šarkatīš=ma arta ANA*^{LÚ}*MEŠEDI=ma našma ANA* DUMU.É.GAL [*DÎ*]NU *n=aš=kan šarkantīn peran arḫa UL paizzi* (IBoT 1.36 iii 31–34)
If a petitioner is standing there, but the case is against a guard or palace servant, he does not pass in front of the petitioner (*CHD* s.v.)[15]

13 Some other proposals "defendant", "suspect" (Guterbock & van den Hout 1991: 48), "Kläger, Zeuge?, Gesandte?" (Jakob-Rost 1966: 209), "litigant" (*CHD* Š- s.v.).

14 Melchert (1996: 135); García Ramón (2019: 140–141). *Aliter* Puhvel, *HED*, 178 s.v. **sark-** ("unrelated to *šarnin(n)k-*", "arraignee [*vel sim.*]", 174).

15 Cf. also IBoT 1.36 iii 16–22 *araḫz=iịa=z kuis* ^{LÚ}*MEŠEDI ḫarzi māḫḫan=ma šarkantin ta-*

Hitt. *šarkant(i)*- reflects the lexicalization as 'plaintiff, demandant' of an *-(a)nt*-participle *šarkant*- 'the one who exacts (: seeks to obtain) restitution'[16] (i.e. with inflection as an *-i*-stem, as is the rule in the adaptation of Luvian formations), and surely refers to the offended, not to the offender.[17] In Luvian, *-ant*-participles had become unproductive[18] and their inflection as *-i*- stems is due to a misunderstanding and erroneous reinterpretation of forms with *i*-motion.[19]

2 CLuv. ⸜*šargašamma/i*- (NH†: 3×) currently interpreted as 'vengeful', i.e. 'seeking redress'[20] is an epithet of the Sun Goddess of Arinna, mentioned as the opposite of 'favorable' (more precisely 'willing to turn in favor'):

> *mā*[*n*]⸗*mu*⸗*za*⸗*kan* DINGIR-*LUM kuit* ⸜*šargašammi*<*š*> IN[IM? *-ni*?]⸗*mu*⸗*kann* DINGIR-*LUM kinun andan aššuli n*[*eia*]*ttati* (KUB 5.24 iv 8–10+16.31 iv 6–8, oracle question, Tudḫaliya IV?)
> if you O deity are somehow vengeful (?) toward me and you will now turn in favor to me [in the matter(?)… (also KUB 5.24 ii 42–45 = *StBoT* 38: 258–259)

The current interpretation of ⸜*šargašammi* as a Luvian participle in *-(a)mmi-* (**-mn-o-*), indifferent to voice (e.g. HLuv. *uuam(m)a/i-* 'having drunk' and

main uatezzi § nu ANA GAL *MEŠEDI kuiēš* 2 *BĒLŪTI* EGIR-*an aranta n*⸗*at šarkanti andurza tapuša iianta araḫza*⸗*ma*⸗*z kuiš* LÚ*MEŠEDI ḫarzi n*⸗*ašta māḫḫan šarkantin ANA*LÚ.MEŠ *MEŠEDŪTIM ḫandānzi apaš*⸗*a*⸗*kan šarkanti* … "when the guard who holds the outside brings in another petitioner, § the two lords who stand behind the chief (of the) guard(s) go on inside beside the petitioner. But the guard who holds the outside passes behind the petitioner (at the moment when) they bring the petitioner in line with the guards …".

16 Not necessarily passive, cf. lexicalized LÚ*pitteiant*- 'fugitive' (*'the one who runs, flies': *pittai-*^{ḫḫi}), LÚ*ḫuuant*- 'id.' (*ḫuuai-*^{ḫḫi} 'to run'), as well as Hitt. *ištamaššant*- 'hearing', *uant*- 'seeing'.

17 Hitt. *šarkant(i)*- might *a priori* be also the offender 'who tries to make good *his* misdeed' (i.e. '… to give reparation'), as is the case with ptc. *šarninkant*-, but this is definitively excluded by the context of its attestations (Melchert 1996: 135).

18 They live on in lexicalized participles, e.g. *ul-ant(i)*- 'dead', or underlying secondary derivatives in *-(a)ntar* (Starke 1990: 229–230, 287–288, 375–380).

19 Probably an error within the tendency towards *-i*-inflection of the consonantal stems in Neo-Hittite (Rieken 1994: 50).

20 Melchert, *DCL*: 241; García Ramón (2019: 138–139). *Aliter* "angry, aroused, furious", "vengeful"? "seeking redress(?)" (*CHD* Š-266), "verärgert, verstimmt, ungnädig" (Tischler, *EHG* s.v.), "aroused" (Puhvel, *HED* s.v.).

tuma(*n*)*tim*(*m*)*a/i*- 'reputed') is compatible with the character of the sun-goddess.

3 Luv. **šarkiu̯ali*- 'vengeful, seeking retribution' (from OH?/MS†) occurs as an epithet of ^{d}U.GUR-*aš* 'Nergal' (KUB 35.108(+)35.87 iv 14*) and of the *nakkiu*-demons (*šarkiu̯alieš nakkiu̯eš* 'vengeful spirits of the dead'):

> *n*=*ašta a*]*nda šarkiu̯aliaš* [*nakkiu̯i*]*aš kištanunu*[*n*] (KUB 17.15 iii 4–5 [conj. NS] = *StBoT* 30: 233)
> I extinguished the vengeful spirits of the dead

The term is of Luvian origin, adapted as Hittite (cf. *karpiu̯āla*- 'furious' : *karpi*- 'fury'), and the character of its referents speaks in favor of a sense 'seeking revenge' and of a connection with *šarkant*(*i*)-, Luv. ⸜*šargašamma/i*-.[21]

4 ?*(⸜)*šargatti*- 'retribution, redress' (NH†: 2× nom.sg. *šar-qa-za* in the oracle question KUB 52.34 obv. 5.9) may be recognised as a derivative of *šark*-:

> DINGIR.ME-*aš* (or .MEŠ!) *šarqaza* NU.ŠE-*du* (KUB 52.34 obv. 5 = obv. 9)
> (If it is) the retribution(?) / anger (?) of the gods (or: … due to the retribution …) let the oracle be unfavorable

The term may be Luvian and adapted as Hitt. *šar-qa-za* (as a noun in *-att*- of the type *aniu̯att*- 'performance'), but also genuinely Hittite (Melchert, *DCL*: 241; *CHD* Š- s.v.). It is clear that (⸜)*šargatti*- is something unfavorable on the part of the gods, but it is impossible to decide between 'retribution, redress' and 'arousal, anger'.

In conclusion: Luvoid *šarkant*(*i*)- 'petitioner, (the one) who seeks redress', CLuv. *šargašamma/i*- 'vengeful' and **šarkiu̯ali*- 'id.', as well as ?*(⸜)*sargatti*- 'retribution, redress', reflect the collocation (3) [OFFENDED – SEEK – MISDEED] (without mention of the object) and point to a base form **šark*-, which is surely the same as the one which underlies *šarnink*-^{mi} (and *šarnikzil*- 'compensation').

21 Melchert, *DCL*: 241; *CHD*-Š, 267–268 ("derived from the verb **šark*(*a*)- connection with *šarnink*- and the *šark*-forms"); García Ramón (2019: 139–140).

7 Summing up: the Anatolian evidence

The collocations (1) [OFFENDER – MAKE GOOD – MISDEED] and (2) [OFFENDED – MAKE GOOD – MISDEED] and (3) [OFFENDED – SEEK – MISDEED] in Hittite have MISDEED as the only object (*nakkuš-*, *kattaụātar-*, *ēšḫar-*) and the position of verbal predicate is filled by *šarni(n)k-* 'to repair' and *šanḫ-* 'to seek'. The semantics of both verbs, namely *šarni(n)k-* (1b) 'to expiate' and *šanḫ-* (2b) 'to avenge', is modified by adverbs and telicizing particles. On the other hand, 'to seek redress' is expressed by some appellatives formed from *šark-*. It must be stressed that the collocation [OFFENDER – PAY – MISDEED], with a specific verb meaning 'to pay', 'to atone' (**kʷeḭ-* and synonyms) and MISDEED (not REPARATION!) as object, which is well-attested in the other IE languages (type Gk. φόνον τίνειν/τεῖσαι), is fully absent from the Hittite texts, where *pai-*^{ḫḫi} is not attested with MISDEED as object: this is a striking difference between Hittite and Core IE which turns out to be crucial from the chronological point of view.

Beside each of the basic collocations there is evidence for a periphrastic expression with *šarnikzil-* 'reparation' (with genitive of the misdeed) as object and a different verb for each of the three basic collocations, namely *pai-*^{ḫḫi} 'to give' (also used for 'to pay' in Hittite)[22] for (1) , *dā-*^{ḫḫi} (: ME-) 'to take' for (2), and *šanḫ-* 'to seek' for (3). The periphrastic expressions *šarnikzil pai-*^{ḫḫi}, *šarnikzil dā-*^{ḫḫi}, *šarnikzil šanḫ-*, which imply the transformation [REPAIR – MISDEED] → [REPARATION – of MISDEED], may be understood as secondary even if they are already attested in Hittite.

The semantics of the three basic collocations is unevenly represented in the Core IE languages. On the one hand, (1a) and (1b) and (2a) and (2b) live on, to varying degrees and expressed mostly by synonyms, in other languages, especially in Latin (section 11), where, moreover, the PIE roots of *sarciō*, *-īre* and *noxia* are the same as those of Hitt. *šarni(n)k-* and *nakkuš-*, respectively. However, the conceptualization of reparation as [REPAIR – MISDEED] stands in sharp contrast with the conceptualization as [PAY – MISDEED] in these languages, which is well-attested, especially in Greek and, to a lesser extent, in Indo-Iranian as well as in other traditions, albeit only in residual forms. On the other hand, the collocations (3a) and (3b) [SEEK – MISDEED] live on in the Core IE languages in the same form as in Anatolian, albeit expressed by lexemes which mostly differ from one tradition to the other: they do not allow to recognize a contrast between Hittite and the oldest Core IE languages.

22 Like Hitt. *kuššaniạ-*^{mi} 'to hire', as well as Toch. *ai-* 'give'.

In what follows, special attention will be paid to the conceptualization of [REPAIR – MISDEED] as [PAY – MISDEED] in the collocations (1) and (2) in the oldest Core IE languages, i.e. those which allow to ascertain striking differences with Hittite – and ultimately to propose a chronological sequence. In contrast, the continuity of the collocations that are not specific to Hittite and do not allow to recognize any relevant difference of conceptualization as against Core IE languages, are of no consequence for the reconstruction of chronological phases within IE reconstruction: this is the case for the periphrasis with REPARATION and GIVE/TAKE/SEEK, as the variants of the collocations (1) (2) and (3) with MISDEED as object (section 8), and for the collocation (3) [SEEK – MISDEED] (section 9). They may be left out of a detailed consideration, but a short review of the essentials of both may be in order at this point.

8 Periphrastic constructions: continuity and formal renewal in Core IE languages

The periphrastic constructions with [REPARATION (*šarnikzil-*) – of MISDEED] as their nominal constituent (instead of MISDEED) and a verb 'give' or 'pay', 'take', or 'seek' have been mentioned above (sections 3–5) as alternatives to the collocations with [REPAIR – MISDEED] and [SEEK – MISDEED], which actually express the same state of affairs, although their structure is different. Periphrastic (1) [GIVE – REPARATION – of MISDEED], (2) [TAKE – REPARATION– of MISDEED], as well as (3) [SEEK – REPARATION – of MISDEED] rely on the transformation [REPAIR – MISDEED] → [REPARATION – of MISDEED], i.e. are secondary with respect to the basic collocations (1) and (2) [REPAIR – MISDEED], (3) [SEEK – MISDEED], but they are attested already in Hittite, and may thus be traced back to Proto-Indo-European as well. On the other hand, they live on in all other languages, in which their constituents are expressed by different lexemes: REPARATION is expressed by different terms, equivalents to Hitt. *šarnikzil-*, reflecting different conceptualizations of REPARATION, among others 'penalty, punishment' (Gk. ποινή [: Lat. *poena*], ζημία, θωιή; OIr. *dígal*; ON *geldr*) or 'fine, reparation' (ON *bót* 'pecuniary compensation', *skuld* : OE *scyld*, Germ. *Schuld* 'debt, payment due'; Toch. B *pkelñe* 'requital, amends' [*'ripening, cooking', cf. IE **pekʷ-*]), 'expiation, atonement' (OAv. *kaēnā-*, YAv. *ciθā-* 'penance, atonement, *ciθāi-* 'expiation'; Lat. *piāculum* : U. *pihaclo-* 'propitiatory sacrifice', also 'punishment') and, last but not least, 'adjustment' (Ved. *ṛṇá-* 'duty, debt', YAv. *arəna-** 'misdeed': **Hṛ-ná-*, **Hár-na-* originally

*'adjustment';[23] cf. the semantic parallel δίκη 'penalty' from 'justice, right'). The continuity of the three periphrastic constructions attested in Hittite in Core IE languages may be shortly exemplified as follows:

Ad (1) [GIVE – REPARATION – of MISDEED] (type *mān ēšḫanašš⸗a kuiški šarnikzil piiạn ḫarzi* 'and if somebody has also given compensation for murder …', section 3): ποινὴν τείσειν Ξέρξῃ τῶν κηρύκων τῶν ἀπολομένων "to pay satisfaction to Xerxes for the death of the heralds" (Hdt. 7.134.2), οὐδὲ … ἔδοσάν σφι δίκας τῆς ἁρπαγῆς "and did not give them reparation for the rape" (Hdt. 1.2.3); *mi calido dabis sanguine poenas* "you will give me reparation with your warm blood" (Enn. *Ann.* 1.95).

Ad (2) [TAKE – REPARATION – of MISDEED] (type ^{d}UTU-*ŠI⸗i̯a⸗z parkunuzzi šarnikzela* (var. [*šarni*]*kzel*$^{\text{HI.A}}$) *SA È-TI* ME-*anzi* "his Majesty will also purify himself and they will take (ME-*anzi*) the compensation for (his) house", section 4): *cáyamānā ṛṇā́ni* "making pay compensation" (*sc.* Ādityas: RV II 27.4), *ṛṇa-cít* : YAv. *arənaṯ-caēša-* 'who makes pay reparation' (cf. section 15); ἀπετείσατο ποινὴν … ἑτάρων "he made (the Cyclops) pay for his companions" (*Od.* 23.312).

Ad (3) [SEEK – REPARATION – of MISDEED] (type *nu mān … apadda šer šarnikzel UL kuitki šanḫta* "and if you … have sought no compensation on that account", section 5): Ved. *ṛṇa-yā́-* 'the one who demands reparation (: punishment)'; αἰτέειν δίκας τοῦ Λεωνίδεω φόνου "… seek reparation for the murder of Leonidas" (Hdt. 8.114.2); *piacula exegit* "reclamed reparation" (Liv. 29.18.18), *quos illi … poenas ob nostra reposcent effugia* "… they will demand due punishment for my flight" (Verg. *Aen.* 2.139).

To conclude, the periphrastic constructions with REPARATION as constituent must be kept apart from the original collocations (1) (2) (3), the constituent of which is crucially MISDEED, not REPARATION.

23 Cf. García Ramón 2024. The term is etymologically connected with Ved. *ṛtá-* 'truth, order', Av. *aša-* 'truth' (**Hṛ-tá-*, **Hár-ta-*) of identical formal structure, cf. also Ved. *áram* : OAv. *arəm* "rectē" or Av. *aši-* 'correct retribution'. *Aliter* Klingenschmitt (1988: 143–145 = *Aufsätze*: 187–188): Indo-Iran. **Hṛ-ná-* connected with an assumed Hitt. *arnu-* "jemanden oder etwas schulden" in *Leges* I 3 (*contra* Puhvel *HED* 1.167, and Melchert p.c.: "*arnu-* in the Laws refers to the obligation to deliver the corpse [for proper funeral rites]").

9 'To seek reparation', 'to revenge', 'to punish': continuity and formal renewal in Core IE languages

The collocation (3) [OFFENDED – SEEK – *another one's* MISDEED], with MISDEED (i.e. 'offence', 'grievance', 'blood' for 'death') as nominal component (e.g. KUB 13.7 i 17–18 *nu=za apāš kattaṷātar šanaḫzi* "he seeks the (complaint for) retaliation") is, however, scarcely attested in Core IE languages. In contrast, the periphrasis with [SEEK – REPARATION (*šarnikzel-*, also 'revenge', 'compensation')], as in KUB 22.70 rev.7 *nu mān … apadda šer šarnikzel UL kuitki šanḫta* "and if you … have sought no compensation on that account", which expresses the same state of affairs, is commonly used.

Verbs with a meaning similar to *šanḫ-*, namely 'to seek, exact, attempt' (also 'to avenge', 'punish' with telicizing particles), are formed from different lexemes in other languages, among them IE **preĥ-* 'to ask' (Lat. *posco*, *-ere* 'to demand' and OP *fraθ* 'to punish') and **i̯eh₂-* 'to seek, search' (Ved. *yā* 2, Av. *yā*, Gk. ζᾱ-, ζη-, see above), which have reflexes in more than one language. In lexemes of this type, atelic 'to exact, demand', whence (→) 'to research, inquire', coexists with telic (or telicized) 'to avenge', 'to punish', most probably as the result of semantic shifts with the result of a secondary polysemy under conditions which could be determined only case by case.

The evidence for [(OFFENDED) – SEEK – MISDEED] is still recognizable in the archaic Latin expression *parricidi quaestores*: Fest. 221M *parrici<di> quaestores appellabantur qui solebant creari causa rerum capitalium quaerendarum*, i.e. "… were called those who were created to investigate capital crimes" (: for capital affairs to be investigated).[24] The official who bears the title *parricidi quaestor* (i.e. the one who obviously *quaerit parricidium**, and *quaerit res capitales**) holds judicial inquiries of the crimes committed by a *parricida*, actually the murder of a relative,[25] or a homicide (Fest. *ibid. si quis hominem liberum dolo sciens morti duit, parricidas esto* "if anyone gives to death a free man with deceit intentionally, let him be a parricide"), or a theft or financial fraud (Cic. *Leg.* 2.9.22 *sacrum sacroue commendatum qui clepserit rapsitue, parricida esto* "let anyone who has stolen, or taken by force a sacred thing or an object commended to a sacred place be a parricide"). As persuasively pointed out by Émile Benveniste, the term *quaerere*

24 Cf. also Cic. *Verr.* (2)2.68 *in rerum capitalium quaestionibus*.

25 Actually a "meurtrier d'un parent par alliance" (Benveniste 1969: 2.155, on the assumption that Lat. *pari-* is connected with Gk. πηός 'kinsman', from **pāso-*). For an alternative explanation, cf. Olsen, this volume.

'to seek'[26] implies the pursuit of a goal with the necessary means to achieve it,[27] in contrast with *poscere* 'to ask, demand' (in mere verbal terms, i.e. without actively taking steps to fulfill the aim): *quaerere* also entails the meanings 'to investigate', 'to interrogate' and even 'to torture', which are attested in terms as *quaestor* (OLat. QUAESITOR), an official who holds different kinds of judicial inquiry, *quaestiō* 'act of searching', also 'judicial inquiry' (e.g. Cic. *Caecin*. 29 … *uenisse in consilium publicae quaestionis* "that he came on the bench of a criminal trial") and 'examination by torture' (e.g. Plaut. *Most*. 1088 *seruos … dare suos mihi quaestioni* "give me his slaves for examination").

In any case, the alternative periphrasis with REPARATION (*sc.* of MISDEED), a remodeling of [SEEK – MISDEED] (§9), has become largely productive. This is, for instance, the case of δίκην αἰτέο/ε- or that of *poenas*, *piacula* with *exigere*, *petere* (also *repetere*, *expetere*) 'to demand reparation for a misdeed', whence 'plaintiff in a legal action' (Cic.+), e.g. Hdt. 8.114.2 … Ξέρξην αἰτέειν δίκας τοῦ Λεωνίδεω φόνου "… to demand from Xerxes reparation for the death of Leonidas", Liv. 29.18.18 *dea … a uiolatoribus grauia piacula exegit* "the goddess exacted heavy restitution from the profaners", Cic. *Att*. 1.16.7 *poenas … peteret sui doloris* "would claim restitution for their pains"(with derivative *petitor* 'plaintiff in a legal action'). The same applies to Lat. *poscere*,[28] *reposcere* 'to demand' (Verg. *Aen*. 2.139–140 *quos illi fors et poenas ob nostra reposcent / effugia* "those of whom they will perhaps demand due punishment for my flight": the same lexeme reappears in OP *fraθ* 'to ask', lexicalized as 'punish', namely in ptc. *u-frasta* (Medic *u-frašta-*) 'well (i.e. severely) punished' in the formula *ufrasta pr̥sa-*, literally 'to inquire one

26 The etymology of *quaero/e-* is irrelevant at this point: a protoform **ko-aiṣ-o/e-* (lastly Meiser 2003: 126) allows a connection with **h₂eiṣ-*/**h₂iṣ-* 'to ask, demand'(cf. OHG *eiscon* 'id.' as law term, also synonymous Lith. *(j)ešk oti*, OCS *iskati*; Ved. *icchá-* : Av. *isa-* does not occur as legal term), but a desiderative **kʷeh₂-i-s-* from **kʷeh₂-i-* 'to acquire', cf. Gk. aor. πᾶσασθαι, perf. πεπᾶσθαι (A.J. Nussbaum *apud* de Vaan, *EWLat.*, s.v. *quaerō*) is perfectly possible.

27 Benveniste (1969: 2.153–161), especially "Le groupe de *quaero*, *quaestus* … se définit par le caractère … matériel du moyen mis en œuvre pour obtenir ce qu'on cherche" …"seul compte ici la manière employée pour se le [*sc.* quelche chose] procurer ; ce n'est pas simplement en demandant" (*ibid*. 153, 160) ; "**prek-* … designe la demande verbale (*precor*, *procus*)" (*ibid*. 153). The coexistence of both verbs (Cato *agr.* 141.2 *Mars pater, te precor quaesoque, uti sies uolens propitius mihi domo familiaeque nostrae*, Lucr. 5.1299 *non diuom pacem uotis adit ac prece quaesit* …?) is not a mere instance of redundance, as each one has its basic meaning (Benveniste, *ibid*. 156–157).

28 The same applies to OHG *forscōn* 'to inquire' (*sc.* the judge), a denominative from *forsca* 'inquiry'.

well-inquired' (*Transponat *h₁su-preĥ-to- pr̥ĥ-sĥ-o/e-* with *figura etymologica*), i.e. 'to punish one well-punished', cf. DB 1.22 *haya arīka āha avam ufrastam apr̥sam* "who was disloyal, him I punished severely".[29]

The construction with REPARATION is surely recognizable in the case of compounds with 'exact, seek' as its verbal component and a noun 'fine, punishment, retribution', not 'misdeed, crime', as object. This is the case for Vedic compounds with °*yā-* (IE **i̯eh₂-* 'to seek, exert, long for' : Ved. *yā* 2, Av. *yā*, also deadjectival ζητέο/ε- 'to seek', Hom. Ion. δίζησθαι 'id.', Toch. B *yā-sk-* 'to beg') and Ved. *r̥ṇá-* 'adjustment', YAv. *arəna-** 'misdeed' (section 8) as first member: Ved. *r̥ṇa-yā́-* 'the one who demands reparation', whence 'avenger', *r̥ṇa-yā́van-* 'id.', *r̥ṇa-yā́t* 'id.' (TS), e.g. RV II 23.17c *sá r̥ṇacíd r̥ṇayā́ bráhmaṇas pátir* "so then you, as the Brahmaṇaspati, are the one who makes pay reparation, and seeks reparation", IV 23.7cd *r̥ṇā́ cid yátra r̥ṇayā́ na ugró dūré … babhādé* "after the powerful exactor of reparations has also thrust our debts far away", I 87.4c *ási satyá r̥ṇayā́vānedyaḥ* "you are a real, irreproachable exactor of reparations". On the strength of this evidence, *r̥ṇá-* may safely be assumed to be the implicit object of the agent noun *yātár-*, an epithet of Indra: I 32,14ab *áher yātā́raṃ kám apaśya indra …* "Whom did you see, Indra, as the avenger of the serpent …?".[30] The same applies to the Greek match of Ved. *yātár-*, namely *Zᾱτήρ (Ζητήρ · Ζεὺς ἐν Κύπρῳ Hsch., with Attic spelling), even if there is no indication of what is avenged. The match speaks in favor of the reconstruction of IE **i̯eh₂-tér-* 'seeker (*sc.* of reparation)', i.e. again an indirect reflex of the periphrastic construction [SEEK – REPARATION], not [SEEK – UNDEED] (like Lat. *quaestor parricidi*). Ζητήρ, like other derivatives (see below), is isolated from ζᾱτέο/ε- (Ion. δίζησθαι), which only means 'to seek, research' in 1st-millennium Greek,[31] but its original semantics live on in a series of legal terms, which reflect the different variants of 'to seek' mentioned above:

29 Also DB 4.66 after *haya viyanāθaya-* "who did harm …".

30 Accordingly, it is possible to assume that the agent nouns Ved. *cetár-* 'punisher' (RV VII 60.5a) and YAv. *a-caētar-* (Yt. 10.26) have the same object as that of the compound *r̥ṇa-cí-t-* 'the one who makes pay (*cáy-a-te*: **kʷei̯-*) debts', i.e. 'punisher' (cf. IX 47.2c *r̥ṇā́ ca dhr̥ṣṇúś cayate*), YAv. *arənaṯ.caēša-* 'who punishes misdeed' (Yt. 10.35).

31 The expression ἐκζητεῖν τὸ αἷμα 'to seek/reclame the blood' (LXX, *Ev.Luc.*) formally fits into the pattern of [SEEK – MISDEED]: LXX 2 *Regn.* (= 2 *Samuel*) 4.11 καὶ νῦν ἄνδρες πονηροὶ ἀπεκτάγκασιν ἄνδρα δίκαιον …· καὶ νῦν ἐκζητήσω τὸ αἷμα αὐτοῦ ἐκ χειρὸς ὑμῶν … "… wicked men have slain a righteous man … and now I shall reclame his blood from your hand" (also *Ev.Luc.* 11.50.1 ἵνα ἐκζητηθῇ τὸ αἷμα πάντων τῶν προφητῶν τὸ ἐκκεχυμένον …). The construction actually reflects a Semitism *hălô' 'ăḇaqqēš 'eṯ-dāmô* "shall I not require his blood?" (KJV) (Ana Vegas, p.c.) and cannot be understood as inherited.

ζητητής, a title of Attic officials commissioned to inquire about financial misdeeds (e.g. Lys. 21.16 πολὺ ἂν δικαιότερον ὑμᾶς ὑπὸ τῶν ζητητῶν ἀπογραφῆναι τὰ ἐμὰ ἔχειν), glossed as ζητητής · ἀρχή τις Ἀθήνησι κατὰ καιροὺς καθισταμένη, εἴ ποτε τοὺς ἀδικοῦντάς τι δημοσίᾳ δέοι ζητεῖν (Harp.), is equivalent to Lat. *quaestor*. Other terms transmitted as glosses evoke punitive procedures: ζητρόν · τὸν δαμόκοινον 'executioner', ζητόρων · ζητούντων, γράφουσι δὲ ἔνιοι ζητητόρων (Hsch.), ζητόρων · ζητητῶν (Phot.), ζήτρειον · τὸ τῶν δούλων κολαστήριον 'penitentiary, correction place' (Hsch.), ζατρεύω · ἐν μυλῶνι βασανίζω 'to question by applying torture' (*EM*).

To conclude, let us remember that among law terms in different traditions there is a series of derivatives from lexemes meaning 'to seek', which are lexicalized as 'to research', and/or 'to avenge', and/or 'to torture', and give no indication about their object: one may assume that this is MISDEED, but REPARATION or the AUTHOR of the MISDEED are possible as well. This is the case, among others, with OIr. *éiliugud*, *éiligud* 'claiming, demanding', OIr. *féchem* 'litigant', actually 'defendant', also 'plaintiff' (cf. *fíach* 'debt'),[32] or ON *sókn* 'lawsuit, prosecution' (vs. *vǫrn* 'defence'), *sǫk* 'a charge', 'the offence charged, guilt', OE *sōcn* 'investigation', OHG *sahhu* 'accuser, plaintiff' (Goth. *sokns** "ζήτησις": **seh₂g/ĝ-* 'to prosecute', cf. ON *sækja* 'id.' [ptc. *sækjandi* 'prosecutor' vs. *verjandi* 'defendant' with *sókn* 'lawsuit' or with 'offender']).

10 The basic conceptualizations 'to repair a misdeed' (the offender) and 'to make (the offended) repair a misdeed' in Core IE languages

The collocations (1) [OFFENDER – REPAIR – MISDEED] and (2) OFFENDED – REPAIR – MISDEED], as stated for Hittite (sections 3–6), live on, to varying degrees, in the Core IE languages. Lexical matches are limited to Latin (*sarcīre* : *šarni(n)k-* 'to repair', *noxia* 'damage, of *noxa*' : *nakkuš-* 'damage, harm'), but the phraseological patterns are continued under the form of synonyms or quasi-synonyms, which may be considered as their substitutory continuants (*Ersatzkontinuante*). A somewhat arbitrary selection limited to Latin, Greek and Old English material,

32 "Mutuum, Geschuldetes, Schuld" (Pokorny, *IEW*, 1131), cf. OIr. *do·fich* 'bestrafen' (in suppletion with *do·beir* 'impose'), cf. de Bernardo Stempel (1999: 391) (**u̯eik-* 'to turn', cf. Lat. gen. *uicis* 'turn, occasion'), probably connected with Lat. *ui-n-ciō*, *-īre* beside U. *previślatu* (**-u̯inkelā-tōd*) 'should damage the enemy': denom. *u̯inkel-ā-* ("vielleicht 'vorher [in verhütender Absicht] fesseln'" Untermann 2000 s.v.).

which should be enlarged,[33] makes it possible to recognize a continuity in the case of Lat. *(ex)piāre* 'expiate', Gk. ἐξιᾶσθαι 'to amend' (*'heal'), (ἐξ)ἀκεῖσθαι 'id.' (prose) or OE *betan* 'to make amends', and of appellatives like Lat. *damnum* (and *damna*) 'harm(s)', *culpam* 'crime', *infamiam* 'dishonor', *iniuriam* 'offence', βλάβη, βλάβος 'damage' (prose) or ἀδίκημα 'wrong done', or OE *synn* 'sin', *ealle þing* 'all things' and others, which are functionally equivalent to Hitt. *ešḫar* 'blood', as the concretization of 'misdeed', or *kattaṷātar* 'grounds for a quarrel' or *uttar* 'affair' (: *AWAT*). The essentials of the evidence from these languages for both collocations will be briefly reviewed (always with the reservation that in some phrases the agent of [REPAIR – MISDEED] may not exactly be identified as OFFENDER or as OFFENDED).

11 The Latin evidence

The collocations of OLat. *sarcīre* 'to repair, amend' (*sarcire est integrum facere* Fest.)[34] and *re-sarcīre* (Cato+), perfectly match those of *šarni(n)k-*, as *noxiam sarcīre* 'to make amends for a damage' and *nakkuš šarni(n)k-* shows: *noxa* 'harm, damage', *noxia* 'damage, misdeed subject to reparation' (*-*i̯ā*-derivative *'related to *noxa*')[35] and Hitt. *nakkuš-* 'damage' are etymologically connected (PIE **noĤk-/neĤk-* 'damage'),[36] and the same applies to *sarcīre* (**sr̥k-i̯o/e-*)[37] and Hitt. *šarni(n)k-* (remodeled from **sr̥-n-ék/k-*), Hitt. Luv. *šark-* (PIE **serk-* 'to make whole').[38] As

33 The possibilities of comparison with other domains are pointed out by Watkins (1970: 352 n. 26 = 1994: 423).

34 Like Hitt. *šarni(n)k-*, also 'to mend, repair, restore' with material, concrete objects., among others 'roofs', cf. *sarcta tecta*, and the formula *sartum* (*et*) *tectum* 'closed and covered', *sane sarcteque* (all Fest.).

35 "*noxia* ['that of the *noxa*'] requires a counterprestation", "a restitution of the damage" (Watkins 1970: 330 = 1994: 431, with reference to the definition of *noxa* as "état durable de responsabilité resultant de la commission du délit", and of *noxia* as "dommage sujet à reparation" in De Vischer 1947: 544).

36 Cf. Rieken (1999: 202–204), also Catsanicos (1986: 167, 199 and 1991: 12–13), Melchert (2014). Neuter **nóĤku-*, **néĤku-* underlies Hitt. *nakku(ṷa)-* 'the dead' as 'those who have disappeared, gone lost' or 'the murdered', "a source of evil, specifically harmful speech" (Melchert 2014: 225), 'the one of loss/disappearance/death' (Melchert 2014: 223–224) via a hypostasized gen. *nakkuṷaš*.

37 On the *-a-*vocalism cf. Watkins (1970: 332 = 1994: 433); Eichner (1982: 19 n. 16–17, *sarciō*, *-īre* secondary after *farciō*, *-īre* 'to fill' (**bʰr̥rk*$^{(w)}$*i̯o/e-* cf. ῥράττο/ε- 'to surround, enclose'); Schrijver (1991: 416, *sarciō, -īre* with Italo-Celtic /CaCCC-/ from */CCCC/).

38 Watkins, *AHIED*, 78–79; *LIV*^{2} s.v. "instand setzen, wieder gutmachen" (T. Zehnder);

stressed by Calvert Watkins, the collocation stands in the framework of the *noxales actiones*, which have striking parallels in the Hittite procedure according to which a misdeed may be repaired by means of a reparation (Lat. *sarcīre*, Hitt. *šarni(n)k-*) or by delivering the offender to the offended for punishment (Lat. *dēdere* , Hitt. *šui-*^{mi}),[39] as attested in Gell. 11.18.8 *uoluerunt noxiamque ab his factam sarciri* "decided that the damage done by them should be made good" (later *Dig.* 47.9.9.1, §11 *aut noxiam sarcire iubetur*), and in Pl. *Lg.* 936d ὁ τοῦ βλάψαντος δεσπότης ἢ τὴν βλάβην ἐξιάσθω μὴ ἐνδεῶς, ἢ τὸν βλάψαντ' αὐτὸν παραδότω "let the owner of the one who has injured either fully repair the damage or hand over the one who has himself injured …" (cf. section 12).

The precise correspondence between Hittite and Latin must be inherited, and its archaic, residual character is explicitly confirmed by Festus' remark on the gradual replacement of the formula *noxiam sarcīre* by (fully equivalent) *damnum soluere* 'to pay the damage':[40] Fest. p.322 Müll. *noxiam sarcito*, *damnum soluito* : *sarcito in XII. Seruius Sulpicius ait significare damnum soluito, praestato.* The gloss indirectly proves that the conceptualization of reparation as 'to pay' belongs to a later chronological layer than that expressed by *sarcīre* (and Hitt. *šarni(n)k-*), namely 'to repair, amend', and not vice versa.

Other instances of *sarcīre* (and *resarcīre*) with *damnum*, *detrimentum*, *infamiam*, *iniuriam* as object outside the context of *noxales actiones* speak for themselves:

1 with OFFENDER as the agent:

nulla dubitatio relinquetur quin honore mortui quam uiuo iniuriam fecimus sarciamus (Cic. *Phil.* 9.4.8)

no doubt will remain that we should repair the offence that we made to him when he was alive now that he is dead with honor

García Ramón (2019: 146–147).

39 Watkins (1970: 328–332 = 1994: 429–433) with references to Gaius inst. 4.75 *ex maleficio filiorum familias seruorumque, ueluti si furtum fecerint aut iniuriam commiserint, noxales actiones proditae sunt, uti liceret patri dominoue aut litis aestimationem suffer<r>e aut noxae dedere* "… either to bear the damages or to surrender the offender" (de Zulueta). Cf. also the late variant *in noxam* in Iust. 9.1.1 *quamobrem eum sibi aut noxam sarcire aut in noxam dedere oportere*. On the Greek evidence cf. Watkins (1970: 333–334 = 1994: 434–435).

40 Cf. Watkins (1970: 329 = 1994: 430, "*noxia* equivalent to, and gradually replaced by *damnum*" … "dommage sujet à reparation").

…, *excusante Tiberio … ac damnum liberalitate sua resarsurum pollicente …* (Suet. *Claud.* 6.2)
… Tiberius having excused … and promising to repair his loss at his own expense …

2 with OFFENDED as the agent:
hanc legionem sperans Caesar se opprimere posse et cupiens eius diei detrimentum sarcire (Caes. *Civ.* 3.67.2)
… Caesar hoping to be able to surprise this legion and wishing to repair [: to take compensation for] the losses of that day

The same conceptualization may be expressed by means of other terms, among others *piō*, *-āre* (also *ex°*, like Umbrian *piha-*) in the telicizing reading (1) 'to expiate' and (2) 'to avenge' (*culpam* 'crime', *ignominiam*, *nefas* 'impious deed', *scelus* 'crime'):

1 'to expiate':
hanc … pro numine laeso
effigiem statuere, nefas quae triste piaret (Verg. *Aen*. 2.183–184)
they erect that image … for the offense to the goddess, which could expiate their gloomy sacrilege (cf. also Liv. 9.15.8 *Samnitium imperator, ut expiaret consulum ignominiam, sub iugum … est missus* "[I find in the *Annals* that] the general-in-chief of the Samnites had been sent under the yoke, to expiate the humiliation suffered by the consuls")

quos illi fors et poenas ob nostra reposcent
effugia, et culpam hanc miserorum morte piabunt (Verg. *Aen.* 2.139–140)
Those of whom they will perhaps demand due punishment for my flight, and expiate this crime of mine with their death, unfortunate ones

ut quidquid istud sceleris imminet, meo tantum sanguine pietur (Tac. *Ann.* 1.42)
so that whatever wickedness is thereby threatened, may be expiated by my blood only

2 'to avenge':
tua scelera di immortales in nostros milites expiauerunt (Cic. *Pis.* 85)
it is your crimes that the immortal gods have avenged on our troops

Specifically characteristic for 'to avenge' (*sc*. the OFFENDED, like Hitt. *šanḫ-* with telicizing particle, section 4) is the use of synonymous *uindicō*, *-āre* 'avenge, revenge', also lexicalized as 'punish' (with *dolus malus* 'bad treachery', *facinus*, *nex* 'slaughter', 'offense' *et sim.*), e.g. Ov. *fast.* 6.468 *quique necem Crassi uindicet ultor erit* "there will be an avenger who shall exact punishment for the slaughter of Crassus".[41]

12 The Greek evidence

In Greek ἐξιᾶσθαι 'to cure thoroughly' (τὴν βλάβην 'the damage', also τὸ βλαβέν once,[42] also ἰᾶσθαι τὸ βλαβέν, and ἀδίκημά ἀκεῖσθαι), are used to express the same procedure as in Hittite and Latin (section 11). The continuity of the conceptualization [MAKE GOOD – MISDEED] cooccurring with [PAY – MISDEED] (ἀποτίνειν 'to duly pay', with both βλάβην and βλάβος)[43] in the very same passages makes evident the coexistence of both conceptualizations still in Classical Greek:

> [a] δοῦλος δ' ἐάν τις ἐλεύθερον ὀργῇ τρώσῃ, παραδότω τὸν δοῦλον ὁ κεκτημένος τῷ τρωθέντι χρῆσθαι ὅτι ἂν ἐθέλῃ · ἐὰν δὲ μὴ παραδιδῷ, αὐτὸς τὴν βλάβην ἐξιάσθω · … ἐὰν δὲ μὴ ἕλῃ, τριπλασίαν ἐκτεισάτω τὴν βλάβην … [b] ὃς δ' ἂν ἄκων ἄλλος ἄλλον τρώσῃ, τὸ βλάβος ἁπλοῦν ἀποτινέτω (Pl. *Lg.*879ab)
>
> If a slave injures a free person by a fit/in anger, let the owner hand over the slave to the wounded man so that he can do with him what he wishes – and if he does not hand him over, let him fully repair the damage … and if he does not obtain it, he must pay three times the damage and whoever hurts another involuntarily, he must simply pay the simple fine

41 Cf. also Cic. *Verr.* 2.3.194 *improbum facinus … fortasse adhuc in nullo etiam uindicatum* "a shameful action… perhaps not yet punished in any instance"; Ov. *trist.* 3.8.40 *quod non offensas uindicet ense sua* "… as he did not avenge his wrongs with his sword".

42 Cf. also Pl. *Lg.* 936e ὁ τοῦ βλάψαντος δεσπότης … ἐὰν δὲ ἡττηθῇ, τήν τε βλάβην ἐξιάσθω καὶ τὸν δοῦλον παραδότω (also Pl. *Lg.* 936d, cf. 1 *supra*). The verb is used metaphorically with other objects: *Lg.* 933c … μηδ' αὖ τὸν νομοθέτην τε καὶ τὸν δικαστὴν ἀναγκάζειν ἐξιᾶσθαι τῶν ἀνθρώπων τοὺς τοιούτους φόβους "would oblige the legislator and the judge to put a remedy to that kind of terrors".

43 Cf. Pl. *Lg.* 878c … ἐκτίνειν καὶ τῇ πόλει τὴν βλάβην, 954b τὴν διπλασίαν τοῦ τιμηθέντος βλάβην ἐκτίνειν; 843c τὸ μὲν βλάβος ἀποτινέτω; D. 21.43 οἱ περὶ τῆς βλάβης νόμοι . . ἁπλοῦν τὸ βλάβος κελεύουσιν ἐκτίνειν.

Cf. also *Lg*. 933e … μέχριπερ ἂν ἰάσηται τὸ βλαβέν "… so that the damage is repaired"; *R*. 364c εἴτε τι ἀδίκημά του γέγονεν αὐτοῦ ἢ προγόνων, ἀκεῖσθαι μεθ' ἡδονῶν τε καὶ ἑορτῶν "… and if there is any fault committed by any of them or their ancestors, to repair it by enjoyments and feasts".

The collocation (2) with OFFENDED as the agent, more precisely, (2b) 'to avenge' (like Hitt. *šanḫ-* with particle or Lat. *uindicāre*) is commonly expressed by τιμωρεῖσθαι, also (rarely) by πράττο/ε-, and underlies isolated nominal forms related to ζᾱτέο/ε- 'to seek', of the type ζητήρ 'seeker (of adjustment, vengeance)', 'punisher' (see section 9). Some instances:

> Ὦ παῖ, εἰ τιμωρήσεις Πατρόκλῳ τῷ ἑταίρῳ τὸν φόνον καὶ Ἕκτορα ἀποκτενεῖς, αὐτὸς ἀποθανῇ (Pl. *Ap*. 28c)
> Son, if you avenge the slaughter of your comrade Patroclos and kill Hector, you will yourself die[44]

> (Κάδμου) ὃς γηγενεῖ δράκοντι τιμωρεῖ φόνον (E. *Ph*. 935)
> who avenges the slaughter of the earth-born serpent

As to φόνον πράττειν 'to exact the crime' (i.e. 'punishment, vengeance'), πράξασθαι 'to avenge, punish', cf.

> τοῦ θανόντος ἡ Δίκη πράσσει κότον (A. *Fr*. 266.5)
> the Justice seeks the grievance for the dead (cf. Hitt. *kattaṷātar šanḫ-*)

> … φράζειν Ὀρέστῃ τῷδε, τὸν πατρὸς φόνον
> πράξαντα μητρὸς μηδαμοῦ τιμὰς νέμειν … (A. *Eu*. 623–624)
> to tell to Orestes, here, that in avenging the murder of his father he should take no account at all of the respect to his mother

44 Actually a paraphrasis of *Il*. 18.96 αὐτίκα γάρ τοι ἔπειτα μεθ' Ἕκτορα πότμος ἑτοῖμος "… as immediately after Hector is your own fate ready at hand". Cf. also E. *Or*. 433 … Παλαμήδους σε τιμωρεῖ φόνον (v.l. φόνου) "… he is taking vengeance on you for the murder of Palamedes", D.H. 4.77.3 ἀδελφὸν…, ὃς ἔμελλε τιμωρήσειν τῷ θανάτῳ τοῦ πατρός "brother … who was ready to take vengeance for the death of his father".

13 Evidence from Ancient Germanic languages

Old English *bētan* 'to make better, amend, repair', *ge-bētan* 'id.' (Goth. *botjan* "ὠφελεῖν", ON *bæta* (*bót*) 'to repair', OHG *buozzen*, Germ. *büssen*), with derivative *bōt* 'redressing, compensation', and with *synn* 'sin' and *ealle þing* 'all things (*sc.* all offences)' as object, reflects the inherited collocation [MAKE GOOD – MISDEED], with the same semantics as attested in Latin and Greek above (sections 11–12):[45]

> *þonne sceolan we mid ure anre saule forgyldan & gebetan ealle þa þing þe we ær ofor his bebod gedydon* (*Blickling Homilies 7*, Morris 1874–1880: I 91)
> when we must with our souls alone make recompense and amends for all things that we have previously done against his commands (tr. Morris)

Cf. also *for bōte his synna* "for a redressing of his sins" (Bede *de Natura Rerum* 4.25).

A collocation [MAKE GOOD – MISDEED] may be assumed also for ON *bæta* (*bót*) 'to repair, amend', also 'redress, adjust a wrong', in the specific sense 'to make good a wrong inflicted' (with or without *yfir*, and with the OFFENDED introduced by *við*), cf.

> *hefir þú yfir bætt við mik um þetta bráðræði* (*Saga Ólafs konúngs Tryggvasonar* 159)
> you would thus compensate me for your rash resolve (tr. Sephton)

On the other hand, the legal sense 'to pay weregild' of ON *bæta* (also the expression *bæta baugum* 'to pay weregild', *Eb.* 174) may reflect a collocation [REPAIR (*bæta*) – MAN_{ACC} – with $\text{COMPENSATION}_{\text{DAT}}$] (texts from Cleasby & Vigfusson 1874, s.v.):

> *Hrafnkell bætti engan mann fé* (*Hrafnkels saga* 4)
> Hrafnkell paid no weregild whomsoever he slew
>
> *Styrr vá mörg víg, en bætti engin* (*Eyrbyggja Saga* 54)
> Styrr slew many men, but paid for none

45 I owe these references to Riccardo Ginevra (p.c.).

The same collocation may underlie the derivative *bót* (pl. *bætr*) 'redress, remedy' (*sc*. for health), also 'fine, pecuniary compensation', as attested in the compound *vígs-bætr* 'compensation for manslaughter' (Riccardo Ginevra, p.c.).

In conclusion, the unmistakable evidence for the collocation [MAKE GOOD – MISDEED] in a (forcedly limited) selection of Core Indo-European languages (sections 11–13) strongly suggests that further research may enlarge the list of phraseological patterns which reflect this conceptualization in different traditions.

14 Vedic 'to make pay/atone (med. *cáy-a-^{te}*) the misdeed', Latin 'to pay (*luere*, *soluere*) the misdeed'

The conceptualization of the reparation of a misdeed in the collocations with [MAKE GOOD] (1) and (2) in Hittite (sections 3–4) and in some Core IE languages (sections 11–13) stands in opposition to that with [PAY] (IE **k^{w}eu̯̯̯-* 'to pay', 'to atone'), i.e. (1) [OFFENDER – PAY – MISDEED] and (2) [OFFENDED – MAKE PAY (also 'punish, avenge') – MISDEED] respectively, which are well attested in Avestan and especially in Greek (in terms of diathetic opposition, see below, section 15), as well as in Vedic (only med. *cáya-^{te}* 'to punish, avenge') and in a series of residual forms (from **k^{w}eu̯̯̯-* or from synonyms, e.g. Lat. *luere*, *soluere*) in other Core IE languages. The fact that in some languages there is evidence only for (1) [OFFENDER – PAY – MISDEED] (e.g. Latin) or, less frequently, only for (2) [OFFENDED – PAY – MISDEED] (e.g. Vedic) may be traced back to an earlier stage of development, previous to the diathetic opposition between active 'to pay, atone' vs. causative middle 'to make pay, atone' (as consistently attested and developed in Greek and, less consistently, in Avestan, i.e. as a specific development of both branches), rather than be understood in terms of impoverishment of a complex opposition system we can assume for Core IE. Let us shortly recall the evidence from the two languages where only one of the collocations is attested, namely Vedic and Latin.

Ved. *cáy-a-^{te}* 'to punish, avenge'[46] (*media tantum*, which has no active counterpart †*cáy-a-^{ti}*), reflects the lexicalization of causative *'to make pay/atone', cf.

> *ná dūḍhyè ánu dadāsi vāmám*
> *bṛ́haspate cáyasa ít píyārum* (RV I 190.5cd)
> to the evil-minded one you do not concede anything of value; you just punish (: make pay) the reviler, Bṛhaspati

46 Cf. Gotō (1987: 132–133); Covini (2017: 225–240).

Cf. also I 167.8b *cáyata īm aryamó ápraśastān* "Aryaman makes the unlaudable (men) atone" ("straft die Unloblichen", Witzel-Gotō), VII 52.2d *mā́ tát karma vasavo yác cáyadhve* "Let us not do that which you avenge, o Vasus". The construction of *cáy-a-*^{te} with *ṛṇá-* (also *ṛṇa-cít-*, originally 'who makes pay a reparation', also *ṛṇam-cayá-*;[47] on YAv. *arənaṯ.caēša-*, cf. section 15) does not belong here properly, as *ṛṇá-* fits into the pattern of REPARATION, not of MISDEED (section 8), but the semantics of the verb ('to collect, redeem') may only be explained as lexicalization of *'to make pay (an adjustment)':

ṛṇā́ ca dhṛṣṇúś cayate (RV IX 47.2c)
and the bold one exacts reparations for debts

Cf. also II 23.17cd *sá ṛṇacíd ṛṇayā́ bráhmaṇas pátiḥ druhó hanta* "so then you, as the Brahmaṇaspati, are the one who makes pay reparation, and seeks reparation, the smasher of deceit", II 27.4cd *asuryàm ṛtā́vānaś cáyamānā ṛṇā́ni* "they (*sc.* Adityas) of far-reaching care, guarding their lordship, possessing the truth, who make pay reparation".

Lat. *luō/-ere* 'to pay' (also *soluere*), the counterpart of *$^*k^we_i$-*, occurs with the same objects as *sarcīre* (*noxam* 'harm') and similar, e.g. *sanguis* 'blood', *stuprum* 'defilement, dishonor' *et sim.*, e.g.

legati … uenerunt ad ueniam petendam luendamque pecunia noxam (Liv. 38.37.5)
ambassadors … came to ask pardon and to pay with money his undeed

Cf. also Cic. *Fin.* 5.22.64 … *et quae per uim oblatum stuprum uoluntariā morte lueret* "… and a woman who expiated her violently outraged honour by a self-sought death", *Verr.* (2)1.8 *multorumque innocentium sanguis istius supplicio luendus est* "… and the blood of many innocent men, must be atoned for by that man's punishment".[48]

47 The compound may be understood in Vedic synchrony as "Schuld entreibend", "Schuldner strafen, Vergelter" (cf. Scarlata 1999: 124, with reference to synonym *ṛṇá-kāti-* [*kā* 'to desire, long for] and to the name *ṛṇam-cayá-* 'id.' in RV V 30.12).

48 Collocations with *persoluere*, (*ex-*)*pendere* 'to pay' (also *dare* 'to give') with *poenam*, *piacula* 'expiation' belong to the periphrastic type [GIVE/PAY – REPARATION] (section 9) and remain out of consideration at this point.

15 *Sonderfall* Avestan and Greek: 'to pay/atone the misdeed' (active *$k^{w}e\underline{i}$-) vs 'to make pay/atone the misdeed' (middle *$k^{w}e\underline{i}$-)

A special position is that of Avestan and, especially, of Greek, where the pair (1) [PAY – MISDEED] vs. (2) causative [MAKE PAY – MISDEED] is expressed by reflexes of IE *$k^{w}e\underline{i}$- in terms of voice opposition.

15.1 The Avestan evidence

In Avestan the opposition is residually attested, also in terms of different verbal stems, namely (1) *cikaiia-*^{ti} 'to pay, repare' (*sc.* the misdoer) as against (2) *kaiia-iia-*^{te} 'to punish' (*to make pay', *sc.* the offended, like Ved. *cáy-a-*^{te}):

1 ***cikaiia-***^{ti}
cikaiiaṯ sūnahe raēšō baoδō.varštahe ciθaiia (*Vd.* 13.10ij)
"il expiera le tort (*raēšah-*) fait au chien par la peine du baoδō.varšta" (Kellens 1984: 56; cf. also *Vd.* 7.38, 15.22 *et al.*)

2 ***kaiiaiia-***^{te}
vīsaiti upāzananąm pairi ākaiiaiiaṇta (*Yt.* 10.122g)
"qu'ils s'imposent d'expier par une vingtaine de pénitences" (Kellens 1984: 56; also 122c *θrisətam* 'thirty')

The *hapax* YAv. *arənaṯ.caēša-* (*Yt.* 10.35gf), originally 'who makes pay a reparation/something to be reparated', matches Ved. *ṛṇa-cít-* formally. On the other hand, the semantics of obscure YAv. °*caēša-* surely reflects that of (2) *kaiiaiia-*^{te} 'to punish (: make pay)':[49]

arənaṯ.caēšəm viṇdaṯ.spāδəm hazaŋra.yaoxštīm xšaiiaṇtəm (*Yt.* 10.35gf)
punisher of misdeed (: that which is to be adjusted), the levier of armies, whose perception is thousandful, who rules as an all-knowing potentate … ("punisher of guilt" Gershevitch 1959: 186–188).

49 Also "Schuld-antreiber" (Wolf), "Schuld rächend" (Klingenschmitt 1980: 143 = *Aufsätze* 187). The alleged form *caēšəmnō- (*Yt.* 19.93ef) is to be read as †*jaēšəmnō* "(als er) im Begriff war, … zu besiegen" (Hintze 1994: 375, 377–379).

15.2 The Greek evidence

In Greek the expression in terms of voice opposition of (1) [OFFENDER – PAY – MISDEED] (τίνο/ε-, aor. τεῖσαι 'to pay, atone', also ἀπο°, ἐκ°, like Av. *cikaiia-*^{ti}) and (2) [OFFENDED – MAKE PAY – MISDEED] (τίνεσθαι, aor. τείσασθαι 'to make pay, avenge', like Ved. *cáya-*^{te}, YAv. *kaiiaiia-*^{te}) is evident since Homer. This is well-attested in minimal pairs with objects like λώβην 'outrage' and, especially, φόνον 'murder', which is also attested as object of verbs meaning [MAKE GOOD, REPAIR] in Greek and in other languages (e.g. Lat. *nex* 'slaughter').[50] Some minimal pairs may illustrate this, e.g.

1 **[OFFENDER – PAY – MISDEED]**
νῦν μὲν δὴ τοῦ πατρὸς ἀεικέα τ(ε)ίσετε λώβην (*Il.* 11.142)
now you will pay for your father's foul outrage

2 **[OFFENDED – MAKE PAY – MISDEED]**
αἴ γὰρ δή … θεοὶ τεισαίατο λώβην,
ἣν οἵδ' ὑβρίζοντες … μηχανόωνται (*Od.* 20.169–170)
might the gods take vengeance on the outrage which they, in their insolence, plot[51]

Cf. also *Od.* 24.326 λώβην τεινύμενος θυμαλγέα καὶ κακὰ ἔργα "(I have killed the suitors) … avenging (making them pay) all their heart-hurting outrages and their evil deeds".

The same applies to the collocations with φόνον (there is no sure instance with αἷμα 'blood' for 'murder', as Hitt. *ēšḫar*):[52]

50 The voice opposition is also evident with REPARATION (e.g. δίκην, ποινάς) as object, e.g. E. *Med.* 1317 … φόνου τε παίδων τῶνδε τείσωμαι δίκην "…so that I may make (her) pay atonement for the murder of these children", and A. *Pr.* 112 τοιῶνδε ποινὰς ἁμπλακημάτων τίνω "I am paying the penalties for such offenses".

51 Cf. also *Il.* 19.208 … ἐπὴν τεισαίμεθα λώβην, Hes. *Th.*165–166 πατρός κε κακὴν τεισαίμεθα λώβην / ὑμετέρου.

52 But the term occurs in the expressions αἱμάτων … μύσος (A. *Ch.* 649–650 … αἱμάτων παλαιτέρων / τίνειν μύσος "… to repay for the stain of older bloodsheds"); cf. also *Ch.* 312–313 ἀντὶ δὲ πληγῆς φονίας φονίαν / πληγὴν τινέτω "and for a bloody stroke might one pay a bloody stroke".

1 [OFFENDER – PAY – MISDEED]

… εἰς ὅ κε πάντες
τ(ε)ίσετε Πατρόκλοιο φόνον καὶ λοιγὸν Ἀχαιῶν,
οὓς ἐπὶ νηυσὶ θοῇσιν ἐπέφνετε … (*Il.* 21.133–135)
… till you all pay for the death of Patroklos and the slaughter of the Achaeans whom you killed on the swift ships

2 [OFFENDED – MAKE PAY – MISDEED]

μὴ νῦν μοι νεμεσήσετ' Ὀλύμπια δώματ' ἔχοντες
τ(ε)ίσασθαι φόνον υἷος … (*Il.* 15.115–116)
do not blame me, you who have your mansion in the Olymp, for avenging the slaughter of my son!

The collocation τείσατο φόνον 'made to pay a crime' (e.g. *Il.* 4.742 τεισόμενος φόνον) underlies the compounded MN Τεισιφόνος (also patronymic Thess. Τεισιφόνειος, Pherai, *aet.hellen.*) and may be assumed for the MN Τεισάμενος (Hdt.+, inscriptions) and, most probably, for Myc. *qe-ja-me-no /kʷeiamenos/* 'having taken/received a reparation' (from **kʷeu̯-sa-meno-*), after the MN *o-pe-to-re-u /Opʰeltorēus/* (PY Ep 704.1 *o-pe-to-re-u , qe-ja-me-no* …): the sense of *qe-ja-me-no* is confirmed by the explicit indication, exactly in the same position, in PY Ea 805 (H.43): *o-pe-te-re-u , e-ne-ka , a-no-qa-si-ja /(h)eneka anr̥kʷʰasiās/* "because of a man's slaying" (actually a first draft of the initial line of Ep 704). The idea reappears in *Il.* 18.498–499 … δύο δ' ἄνδρες ἐνείκεον εἵνεκα ποινῆς / ἀνδρὸς ἀποκταμένου … "and two men were disputing over the blood price/reparation for a man who had been killed".

We can therefore conclude that the conceptualization of 'repair a misdeed' as [PAY – MISDEED] (*sc.* the OFFENDER) as well as [MAKE PAY – MISDEED] (*sc.* the OFFENDED), may be assumed for Core Indo-European, regardless of the lexemes by means of which it is expressed, and to what extent in the different daughter languages. A series of nominal derivatives of **kʷeu̯-* 'to pay, atone', with different lexicalizations, may be understood as remnants, often isolated *disiecta membra* of the earlier situation, among others: ποινή 'fine' (cf. the *figura etymologica* ποινὰς τεῖσαι 'to pay a fine', Pi., Hdt.+) and Lat. *poena*, OAv. *kaēnā-* 'atonement' (*Y.* 30.8a), YAv. *ciθā-* 'punition', *ciθāi-* 'expiation', also YAv. *kaēnan-* 'avenger' (*Yt.* 9.18, 15.28), MIr. *cin* 'guilt, payment due', also 'crime'.[53] The coexistence in several Core IE

53 From **kʷinu-t-s*, cf. also *cintach* 'guilty', derivatives from **kʷeu̯-* 'to pay' not **kʷeu̯H-* "considérer" (*pace LEIA* C-101, cf. Irslinger 2002: 48, with bibliography).

languages of the conceptualization as [PAY – MISDEED] with collocations which rely on [MAKE GOOD – MISDEED] (sections 11–13) and, especially, the fact that in Hittite [PAY – MISDEED] is not attested (the periphrasis *šarnikzil dai-*^{ḫḫi} is a different construction) strongly support the assumption that it was first created in Core Indo-European, and that the conceptualization as [MAKE GOOD – MISDEED] may be traced back to Proto-Indo-European.

16 Conclusion

The reparation of a misdeed in its twofold dimension, namely by the misdoer and by the one who has suffered it, is conceptualized in two different ways, namely [MAKE GOOD – MISDEED], which is regular in Hittite and is sporadically attested also in some Core IE languages (especially in Latin) and [PAY (atone) – MISDEED], which occurs only in Core IE languages. These conceptualizations differ obviously as to the action of repairing, but share the object [MISDEED]: both are expressed in most cases by means of different lexemes and collocations, with the exception of Hitt. *nakkuš šarni(n)k-* (*hapax*) and OLat. *noxiam sarcīre* for 'to mend the damage', which constitute a striking, albeit not formally exact, lexical and phraseological correspondence.

The conceptualization as 'to make good (actually 'to make whole') the misdeed', both by the misdoer (who 'repairs', or 'expiates', his misdeed) and the offended (who 'makes repair', or 'avenges', the misdeed made by another) is the only one attested in Hittite, and is expressed by means of a limited series of verbs (*šarni(n)k-* 'to make good', also, with telicizing particles, 'to expiate', and *šanḫ-* 'to avenge') and appellatives for 'misdeed' (*nakkuš-*, *kattaṷātar* 'object of revenge', *ēšḫar* 'blood'). The conceptualization is still attested in Old Latin as *noxiam sarcīre*, an expression in the framework of the *actiones noxales* (as shown by Calvert Watkins, cf. section 11) which, as pointed out by Festus, has been replaced by *poenam soluere* 'to pay the damage', and lives on, limited to the reparation by the misdoer, in Greek (βλάβην ἐξιᾶσθαι 'to heal, cure the damage thoroughly') and Germanic languages (e.g. OE *betan* 'to make better'), among others.

The conceptualization of 'to repair the misdeed' as 'to pay, atone' (**k^{w}eu̯i-*) it (*sc.* the misdoer) is well attested in Avestan and in Greek, as well as, expressed by means of different lexemes in Latin (*luere*, *soluere*) and in other Core IE languages. On the other hand, the reparation of the misdeed by the offended is conceptualized in Indo-Iranian and in Greek as 'to make pay, atone for' (middle: Ved. *cáya-*^{te} 'to punish, avenge'), and specifically in terms of voice opposition in Avestan (YAv.

cikaiia-^{ti} 'to pay, atone' vs. *kaiiaiia-*^{te} 'to make pay') and especially in Greek (τίνειν, τεῖσαι vs. τίνεσθαι, τείσασθαι), as shown by minimal pairs with λώβην 'outrage' or φόνον 'murder', and by other lexemes in Latin and other languages. The conceptualization of 'to repair' as 'to pay, atone' has left traces in a series of nominal derivatives of *$^{*}k^{\text{w}}e\underset{\wedge}{i}$- 'to pay', such as ποινή 'fine' and Lat. *poena*, OAv. *kaēnā-* 'atonement' or MIr. *cin* 'payment due', also 'guilt, crime' among others.

There is no sure evidence for the conceptualization of 'to repair the misdeed' as 'to pay the misdeed' (*sc.* the misdoer) and 'to make pay the misdeed' (*sc.* the offended) in Hittite, where only the collocations 'to give (*sc.* pay) a reparation (*šarnikzil- pai-*$^{\underline{h}\underline{h}i}$) for the misdeed (gen.)' and 'to take a reparation (*šarnikzil-dā-*$^{\underline{h}\underline{h}i}$) for the misdeed' are attested. This strongly speaks in favor of the existence of two chronological layers: 'to repair the misdeed' (regular in Hittite, residually attested in some Core IE traditions, especially in Latin) may be traced back to Proto Indo-European, whereas 'to pay the misdeed', well-attested in other daughter languages (Vedic, Avestan and, especially, Greek) by means of reflexes of *$^{*}k^{\text{w}}e\underset{\wedge}{i}$-, represents a specific Core-Indo-European development.

A different case is that of the exacting of reparation by the victim of the misdeed. Its conceptualization is basically the same, albeit expressed by different terms, in all IE languages, namely as [SEEK – MISDEED]: the collocation is, however, only exceptionally attested (Hitt. *kattauāatar šanḫ-*, OLat. *parricidi quaestores*). The basic collocation has been, in fact, replaced by a periphrastic construction with 'reparation' (not 'misdeed') as the object: the construction is already attested in Hittite (*šarnikzil šanḫ-*) and is the norm in other languages (type Lat. *poenas petere*, *piacula exigere*, Gk. δίκας αἰτέο/ε *et al.*).

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Indo-European patrons vs. clients, and the role of poets as social brokers

'Leaders' vs. 'friends', and intelligent speakers in the mythologies of Scandinavia, India, and Rome

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Structural and linguistic parallels between the Norse myth of Kvasir, the Indic myths of Agastya *Mānyá-*, and the Roman legend of Agrippa *Menēnius* allow for the comparative reconstruction of an inherited IE myth, according to which INTELLIGENT (**men-*) SPEAKERS, i.e., POETS, had the role of social brokers (i.e., mediators) between PATRONS (called **h₂ens-u-* 'leaders') and their CLIENTS (called 'friends/allies').

Our reconstruction of the prehistory of Eurasia and of the development of the Indo-European (IE) language family has most recently been revolutionized by a series of important discoveries, most of which would not have been possible without an intensive cross-disciplinary collaboration between, on the one hand, scholars of historical linguistics and Indo-European studies and, on the other hand, researchers working in the fields of prehistoric archaeology and bio-archaeology. This integrated approach has been quite fittingly referred to as 'archaeolin-

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guistics' (Iversen & Kroonen 2018) and has led to several important findings, not only concerning the prehistoric migrations of (most likely) IE-speaking nomadic pastoralist communities from the Pontic Steppe to West, Central, and South Eurasia,[2] but also regarding the social structures of these communities (Sjögren et al. 2020). The present contribution employs a closely related approach, which may be correspondingly referred to as 'archaeopoetics' (Ginevra 2024), and which combines the comparative analysis of poetic devices and mythological narratives attested in various IE traditions with the research data and interpretative models of prehistoric archaeology and related disciplines, such as cultural anthropology, with the objective of achieving an (archaeologically and anthropologically) more realistic reconstruction of the culture and society of the speakers of prehistoric IE linguistic varieties.

More precisely, the present paper considers textual, archaeological, and socio-anthropological data in a cross-disciplinary fashion to approach the prehistory of a social institution that is still very prominent in numerous human communities (Eisenstadt & Roniger 1984), namely 'patron–client relationships' (or 'relations'; English *patronage* and *clientelism* are sometimes used to refer to the same phenomenon). Sociologists and anthropologists have defined a set of features that are cross-culturally common for such relations, among which the most relevant to this study are the following:

(a) **Patron–client relations** are usually **particularistic** and **diffuse**.
(b) The interaction on which these relations are based is characterised by the **simultaneous exchange** of different types **of resources** – above all, **instrumental and economic as well as political ones** (support, loyalty, votes, protection) on the one hand, and **promises of reciprocity, solidarity and loyalty** on the other. […]
(e) […] A] **strong element of interpersonal obligation** […] is prevalent in these relations – an element often couched in terms of personal **loyalty** or **reciprocity** and **attachment between patrons and clients** – even if these relations are often very ambivalent. […]
(g) Despite their seemingly binding, long-range, almost (in their ideal portrayal) life-long, endurance, **patron–client relations are entered into, at least in principle, voluntarily**, and can, officially at least, be abandoned voluntarily.

2 On the so-called 'IE Homeland' problem, see Anthony (2007) and the overview in Olander (2019).

(h) These relations are undertaken **between individuals or networks of individuals** in a **vertical fashion** (the simplest manifestation of which is a **strong dyadic one**) […].
(i) Last and not least **patron–client relations are based on a very strong element of inequality and of differences in power between patrons and clients**. […]

(Eisenstadt & Roniger 1984: 48–49; emphasis added)

The clash between some of these characteristics causes various "paradoxical contradictions" to arise within patron–client relationships, including, e.g., "a rather peculiar combination of inequality and asymmetry in power with seeming mutual solidarity expressed in terms of personal identity and interpersonal sentiments and obligations" and "a combination of potential coercion and exploitation with voluntary relations and mutual obligations" (Eisenstadt & Roniger 1984: 49). In other words, even though they are highly hierarchical, the power-structure of patron–client relationships is often combined with an ideology that stresses moral values of friendship and alliance between the two parties; moreover, even though clients willingly enter relations of mutual obligation with patrons, this choice may also later lead to their potential exploitation by the latter and to sharp tensions that may even threaten the relationship itself.

Typologically, patron–client relations are especially "common among chiefdoms, societies with institutionalized differences in prestige and power, where some clans or lineages claim a right of patronage over others, usually on grounds of holiness or historical priority in a given territory" (Anthony 2007: 99). Of course, among historically attested Indo-European traditions, patron–client relationships most famously occurred within the clan-based society of Ancient Rome (cf. Eisenstadt & Roniger 1984: 52–64), where, to put it most briefly, "[t]he *patronus* was the benefactor of the *cliens*, who in his turn was expected to offer his services to the *patronus*" (Jackson 2016: 171 n. 3). Patron–client relationships have also been reconstructed by linguists and archaeologists as a fundamental feature of the prehistoric chiefdom society of the earliest IE speakers in the Pontic Steppe, where such relationships "regulated the reciprocal obligations between the strong and the weak" (Anthony 2007: 461). This ancient institution may be most synthetically defined as a "way of legitimizing inequality", as in the following exemplary quotation:

Proto-Indo-European institutions included a **belief** in the sanctity of verbal contracts bound by oaths (**h₁óitos*), and in the **obligation of patrons** (**or**

> **gods) to protect clients (or humans) in return for loyalty and service**. […] In Proto-Indo-European religion generally the chasm between gods and humans was bridged by the **sanctity** of oath-bound contracts and **reciprocal obligations**, so these were undoubtedly **important tools regulating the daily behavior of the powerful toward the weak**, at least for people who belonged under the social umbrella. Patron–client systems like this could **incorporate outsiders as clients** who enjoyed rights and protection. This **way of legitimizing inequality** probably was an **old part of steppe social institutions**, going back to the initial appearance of differences in wealth when domesticated animals were accepted. (Anthony 2007: 342; emphasis added)

Given that patron–client relationships were both "an old part of steppe social institutions" and a very important factor in the later expansion of IE languages (the incorporation of non-IE-speaking outsiders as clients of IE-speaking patrons was a likely cause for progressive language shift, cf. Anthony 2007: 117–120), it would be rather strange if this prominent socio-cultural item – well-attested in various historical IE traditions – did not find any counterparts in our comparative reconstruction of prehistoric IE poetic and mythological heritage, especially if one shares Bruce Lincoln's (1999: xii) view of "myth as *ideology in narrative form*".[3] The aim of this paper is thus to fill this gap in the research, by arguing for the reconstruction of an inherited IE mythological tradition dealing with the social tensions of patron–client relationships and with verbal art as the best instrument to keep them intact. This reconstruction will be based on a series of structural and linguistic parallels between various texts belonging to three distinct ancient IE traditions: the Norse myth of the Æsir–Vanir conflict and the birth of Kvasir (section 1); the Indic myths of the birth of Agastya Mānya and his mediation in

3 Original emphasis; cf. *ibid*.: 147ff and *passim*. As is well known, Lincoln's more recent work (roughly from Lincoln 1999 to Lincoln 2018) has been highly critical (not infrequently with good reason) of the comparative reconstruction of IE mythology, even going so far as to reject its validity altogether: the latter view is obviously not compatible with the methodology and results presented in this contribution. The present study, however, has been influenced in some respects by Lincoln's (2018) recent emphasis on "weak comparisons", i.e., comparative analyses that "(a) focus on a relatively small number of comparanda that the researcher can study closely; (b) are equally attentive to relations of similarity and those of difference; (c) grant equal dignity and intelligence to all parties considered; and (d) are attentive to the social, historical, and political contexts and subtexts of religious and literary texts" (*ibid*.: 27).

the Indra–Maruts quarrel (section 2); and the Roman story of Agrippa Menēnius's mediation in a dispute between Patricians and Plebeians (section 3). The data gathered from the comparative analysis of these narratives will then allow for the reconstruction of an IE myth (section 4) whose main actants may be identified as LEADERS (i.e., mythological counterparts to patrons), FRIENDS/ALLIES (i.e., mythological counterparts to clients), and an INTELLIGENT SPEAKER.[4] Finally, in the conclusion (section 5), the latter character will be identified as a mythological reflex of a specific and highly important social role within early IE communities, namely that of the skilled professional of oral-traditional verbal art: the poet.

1 Scandinavia: Æsir, Vanir, and the birth and deeds of Kvasir

The first narrative analysed here is the Norse myth of the war between Æsir and Vanir (the two main tribes of gods according to Scandinavian mythology) and of the closely connected birth of the character named Kvasir, the most intelligent of all beings. This tradition is attested in several medieval texts composed in Old Norse: fragments occur already in the so-called Poetic Edda (e.g., *Vǫluspá* 24), but the plot of the myth is more extensively attested by the following passage of the Prose Edda (section *Skáldskaparmál* 'Language of Poetry'), an Old Norse handbook of poetics and mythology written by Icelandic scholar Snorri Sturluson (1179–1241 CE).[5] Elements that are particularly relevant to the present study are marked in bold here and in all following quotations.

> And Ægir went on: "**How did this craft that you call poetry originate**?" Bragi replied: "The origin of it was that the **gods** had a dispute with the people called **Vanir**, and they appointed a **peace-conference and made a truce** by this procedure, that **both sides went up to a vat and spat their spittle into it**. But when they dispersed, the gods kept this **symbol of truce** and decided not to let it be wasted, and **out of it made a man. His name was Kvasir, he was so wise that no one could ask him any questions to which he**

4 Within this paper, conceptual elements (like LEADERS, FRIEND/ALLIES, INTELLIGENT SPEAKER) that are relevant to the comparative analysis of the narratives are conventionally marked with small capitals.

5 A quite different version of the Æsir–Vanir war (with no apparent connection to Kvasir's birth) is reported by Snorri himself in chapter four of *Ynglingasaga* 'Saga of the Ynglingar', which, in turn, is part of *Heimskringla* 'Earth's Orb', a large compilation of sagas authored by the Icelandic scholar.

> **did not know the answer. He travelled widely through the world teaching people knowledge**, and when he arrived as a guest to some dwarfs, Fialar and Galar, they called him to a private discussion with them and killed him. They poured **his blood** into two vats and a pot, and the latter was called Odrerir, but the vats were called Son and Bodn. They mixed honey with the blood and it turned into the **mead whoever drinks from which becomes a poet or scholar**. The dwarfs told the Æsir that **Kvasir had suffocated in intelligence** because there was no one there educated enough to be able to ask him questions. […] That is why we call **poetry Kvasir's blood** or dwarfs' drink […]". (*Skáldskaparmál* G57; tr. Faulkes)[6]

As is well known, this myth has attracted the interest of a multitude of scholars, including Dumézil (e.g., 1941), who most notably analysed the Æsir–Vanir conflict as a dispute between deities of the first two functions (sovereignty and war) vs. deities of the third function (fertility), respectively.[7] As is often the case with trifunctional analyses, the validity of this interpretation has been called into question, e.g., by Motz (1996: 103–124), who convincingly showed not only that this partition finds no support in the extant ON sources, but also that the texts rather seem to attest the opposite system of associations (Vanir–sovereignty vs. Æsir–fertility). Furthermore, some recent studies have been highly critical of the current *communis opinio* that Snorri's division of the gods in Æsir and Vanir re-

6 Original text: *Ok enn mælir Ægir: "**Hvaðan af hefir hafizk sú íþrótt er þér kallið skáldskap?**" Bragi svarar: "Þat váru upphǫf til þess at **guðin** hǫfðu ósætt við þat fólk er **Vanir** heita, en þeir lǫgðu með sér **friðstefnu ok settu grið** á þá lund at **þeir gengu hvárirtveggju til eins kers ok spýttu í hráka sínum**. En at skilnaði þá tóku goðin ok vildu eigi láta týnask þat **griðamark** ok **skǫpuðu þar ór mann. Sá heitir Kvasir. Hann er svá vitr at engi spyrr hann þeira hluta er eigi kann hann órlausn. Hann fór víða um heim at kenna mǫnnum fræði**, ok þá er hann kom at heimboði til dverga nokkvorra, Fjalars ok Galars, þá kǫlluðu þeir hann með sér á einmæli ok drápu hann, létu renna **blóð hans** í tvau ker ok einn ketil, ok heitir sá Óðreyrir, en kerin heita Són ok Boðn. Þeir blendu hunangi við blóðit ok varð þar af **mjǫðr sá er hverr er af drekkr verðr skáld eða fræðamaðr**. Dvergarnir sǫgðu Ásum at **Kvasir hefði kafnat í mannviti** fyrir því at engi var þar svá fróðr at spyrja kynni hann fróðleiks. […] Af þessu kǫllum vér **skáldskap Kvasis blóð** eða dverga drekku […]".*

7 For a concise overview of Dumézil's multiple publications on this topic, cf. Belier (1991: 192–193 and chapter six in general). Interestingly, Frank (1981) rather argues that this myth originated from Snorri's misunderstanding of a kenning *kvasis dreyri* 'ferment's blood' for 'mead'; this is unnecessary, however, as shown by Males (2020), who concludes that "the evidence is sufficient to corroborate the fact that Snorri reported older lore about the mythical genesis of poetry" (*ibid.*: 159).

flects actual pre-Christian Scandinavian religious beliefs (Simek 2005; Frog 2021). Without engaging further in this complex and ongoing discussion (which is not directly relevant to the scope of this study), the present investigation exclusively deals with the empirical identification of the following six elements in Snorri's passage which are most relevant for our comparative analysis:

1 Kvasir is the MALE PROTAGONIST of this narrative.

2 He is BORN FROM TWO DISTINCT SOCIAL GROUPS, the two main lineages of gods within Norse mythology (at least as attested in Snorri's works), namely:

2A The *Æsir*, referred to as 'the gods' (*guðin*) *par excellence* in our text. They may be analysed as the group more closely associated with LEADERSHIP and HIGHER STATUS (at least within Snorri's *Edda*) for the following reasons, among others. Firstly, the Norse supreme god Odin was a member of this group; in fact, he was both the leader of the Æsir (cf. his epitet *Ása-konungr* 'king of Æsir' in the *Flateyarbók*; Vigfússon & Unger 1860: 26) and the universal 'patriarch' (°*fǫðr*, on which see Ginevra 2020: 7–58).[8] Secondly, the ON nom. pl. *Æs-ir* (sg. *Ás-s*) is a reflex of the Proto-Germanic noun **ans-u-* 'god; semi-divine ruler' (cf. Latinized Gothic *ans-es* 'semi-divine rulers', Old English *ōs* 'god', et al.; Kroonen 2013: 30), which in turn reflects the strong stem of the PIE noun **h₂ens-u-*/*h₂n̥s-u-* 'lord' (Watkins 1995: 8–9), whose weak stem *h₂n̥s-u-* is directly attested by Hittite *ḫašš-u-* 'king', but also indirectly by the Vedic derivative *ásu-ra-* 'lord' (Hale 1986; on this term, see section 2). Thus, ON *Æsir* most likely originally meant 'lords'.

2B The Vanir, i.e., the other major clan of Norse gods according to Snorri's *Edda*. Only three members of this group are known by name, namely the god Njǫrðr and his two children Freyr and Freyja. After the initial dispute mentioned in the passage quoted above, the Vanir become ALLIES of the Æsir; this relationship is attested, e.g., by Snorri's (*Gylf.* 51) account of the final battle at the End of Time (*Ragnarǫk*), in which Æsir and Vanir fight side by side against the beings called *Jǫtnar*. The latter term is often translated as 'giants', but it originated from a word meaning 'eaters' (PGmc **etuna-*) and referred to mythological 'members of the out-group, strangers' (who can either be monstrous

8 On the analysis of ON °*fǫðr*, a frequent second element of epithets of Odin, as the reflex (originally meaning 'patriarch') of a PIE noun **ph₂tr-ou̯-* 'older relative on the father's side', cf. Ginevra (2020: 9–22).

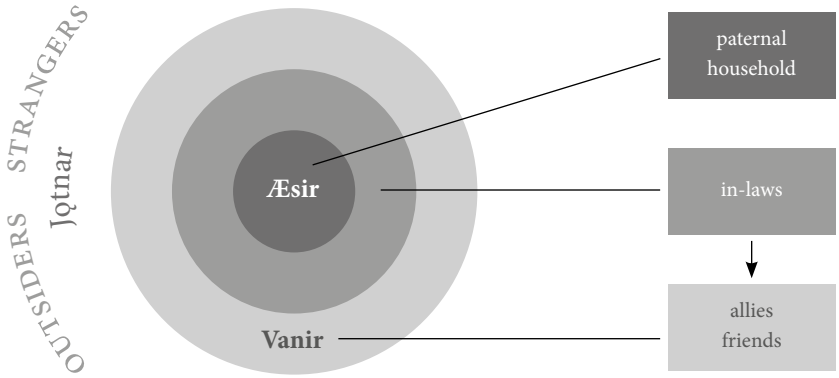

FIGURE 1. Æsir, Vanir, and Jǫtnar in the mythological social space (based on Figure 4 in Olsen, this volume, see p. 336).

'devourers' or friendly 'commensals', as argued by Jackson 2014) in opposition to Æsir and Vanir, who must correspondingly be considered as members of the same in-group here. Given that Odin, leader of the Æsir, was the *Al-fǫðr* 'patriarch of all' (Ginevra 2020: 23–34), and thus also of the Vanir, the latter may be regarded to have LOWER STATUS in comparison to the Æsir (cf., e.g., Lindow 2001: 311). The etymology of the term *Vanir* may support either of these two characterizations: according to one of the most widely accepted proposals, ON *Vanir* (sg. *Vanr*) may be analysed as a term somehow related to ON *vinr* 'friend' (Vries 1962, s.v. *vanr*) and thus connected to their function of ALLIES of the Æsir; alternatively, it may be analysed as a substantivization of the ON adjective *vanr* 'lacking' (pl. *vanir*) and thus rather linked to their identity as gods of LOWER STATUS.

The distribution of Æsir, Vanir, and Jǫtnar in the mythological social space may thus be represented as in Figure 1.

3 Kvasir is BORN FROM THE SALIVA of Æsir and Vanir, COLLECTED and mixed in a VAT. This peculiar detail has long been the object of various interpretations by scholars of Norse mythology, none of which has been accepted with any consensus.[9]

4 Kvasir's birth is linked to the RESOLUTION OF A CONFLICT between Æsir

9 See for example Clunies Ross' (1994: 216–218) interpretation as an instance of pseudo-procreative symbolism (on the latter, cf. *ibid.*: 150–152). On the cognitive mechanisms that underlie this myth, cf. further Quinn (2010) and Burrows (2019).

Feature		Represented by
1 Male character		Kvasir
2 Born from both:	**A** LEADERS of HIGHER STATUS	*Æsir* (PIE **h₂ens-u-* 'lord')
	B FRIENDS/ALLIES of LOWER STATUS	*Vanir* (cf. *vinr* 'friend' or *vanr* 'lacking')
3 BORN from **2A+2B**'s BODILY FLUIDS collected in VESSEL		Saliva collected in vat
4 Linked to RESOLUTION OF CONFLICT between **2A+2B**		Born as symbol of truce
5 Connection with concept MENTAL POWER		Wisest of all beings
6 Association with VERBAL ART		Kvasir's BLOOD = POETRY

TABLE 1. Relevant elements of the myth of Æsir, Vanir, and Kvasir.

and Vanir, after which the two groups initiate a RELATIONSHIP BASED ON INEQUALITY, in which one clan appears to be dominant (see above), but both parties have MUTUAL OBLIGATIONS to one another (e.g., they exchange hostages in *Gylf.* 23).

5 Kvasir is associated with INTELLECTUAL POWER: he was "so wise that no one could ask him any questions to which he did not know the answer"; elsewhere he is said to be "wisest of all beings" (*allra vitrastr* in *Gylf.* 50).

6 He is closely associated with POETRY, which originated from his blood and is thus called "Kvasir's blood" (*Kvasis blóð* in our text; cf. *Kvasis dreyra* in *Skáld*. 3).

To sum up: the Norse myth analysed here features a male character who is born from the bodily fluids, collected and mixed together in a vessel, of a higher-status group referred to as 'lords' (reflecting PIE **h₂ens-u-*) and of a lower-status group referred to as either 'friends' or 'the lacking ones'. This character, closely associated with both intellectual power and verbal art, is linked to the resolution of a conflict between these two social groups, whose relationship is based on inequality and mutual obligations. These elements may be summarized as in Table 1.

In the following section, I will argue that these elements find a number of close parallels in the Indic myths of the seer Agastya Mānya.

2 India: Varuṇa and Mitra, Indra and the Maruts, and the birth and deeds of Agastya Mānya

The Indic traditions discussed here are attested in several texts, composed in Ancient India from the 2nd millennium BCE onwards (but put into writing much later), which deal with two distinct narratives involving the same mythological character, the supernatural seer (*ṛ́ṣi-*) Agastya Mānya: firstly, the episode of his peculiar birth from the mixed seed of two male gods and, secondly, the story of his mediation in a conflict that once arose between the warrior god Indra and his followers, the Maruts.

Fragments of the myth of Agastya's birth (on which see, e.g., Sieg 1902: 105–108, Patton 1996: 266–270) are already attested in the *Rigveda* (RV, the most ancient collection of Indic religious poetry):

> The two [= **Mitra** and **Varuṇa**], brought into being at a (ritual) session, aroused by reverences, **poured their common semen into a pot**. **From it arose Māna** [i.e., either Agastya himself or his father][10] from the middle. (RV 7.33.13*abc*)[11]

The whole plot, however, is more extensively attested in later texts, such as the following passage from the *Bṛhaddevatā* (composed after the 1st century CE).[12]

> A pair [*dvandvam*] was born of her [i.e., of Aditi] – **Mitra** and **Varuṇa**. Of these two Ādityas, having seen the nymph Urvaśī in the sacrificial session, **the seed was spilled. That [seed] fell into a jar** of water that stood overnight. Therefore, at that moment, virile ascetics came into being, the two *ṛṣi*s **Agastya** and Vasiṣṭha. The semen, having fallen in manifold ways – in a jar, in water, on the ground – the sage Vasiṣṭha, best of *ṛṣi*s, came into being on the ground; **Agastya came into being in a jar**, while Matsya of great brilliance, in water. **Agastya** of great glory, then arose, the measure of a stick (*samya*). Because of being measured with a measure, therefore he is here

10 Cf. Jamison (2020: ad loc., date of posting: 15 July 2020), Mayrhofer (2002: 70, with further references).

11 Original text: *satré ha jātā́v iṣitā́ námobhiḥ* / ***kumbhé rétaḥ siṣicatuḥ samānám*** / ***táto ha mā́na úd iyāya*** *mádhyāt.*

12 For an overview of the debate on the dating of the *Bṛhaddevatā*, see Patton (1996: 465–474).

called **Mānya**. Or because **the *ṛṣi* was born from a jar**, by a jar also measurement is made (*Bṛhaddevatā* 5.148–154; tr. adapted from Patton 1996: 267).[13]

Some details of these two Indic passages have correspondences with the elements (1–3, 5) that occur in the Norse tradition as well:

1 Agastya Mānya is a MALE CHARACTER.
2 He is BORN FROM TWO DISTINCT MALE GODS, who together form perhaps the best-known divine 'duo' (*dvandvam* in the second passage) of Indic mythology, namely:
  2A Varuṇa, one of the gods of HIGHEST STATUS ("by the side of Indra, the greatest of the gods of the RV", as per Macdonell 1897: 22), closely associated with LEADERSHIP: he is the deity who "in particular represents the authority of the king" and whose "divine acts […] were often reflected in the functions of the Ṛgvedic king" (Jamison & Brereton 2014: 43). In the RV (e.g., 2.27.10*b*; 2.28.7*b*), Varuṇa is called *ásura-* 'lord'[14] particularly often, at least compared to other gods (Hale 1986: 52), and, according to a widespread hypothesis (at least as early as Darmesteter 1877; cf. Hale 1986: 187, 191), he may be the Indic counterpart of the Avestan supreme god Ahura Mazda. Both Vedic *ásu-ra-* and Avestan *ahu-ra-* reflect a *-ro-* derivative (quasi **h₂ŋ̍su-ro-*) of the weak stem of the same PIE noun **h₂ens-u-/h₂ŋ̍s-u-* 'lord' that also underlies ON *Æs-ir*, sg. *Ás-s*, and other reflexes of PGmc **ans-u-*. Varuṇa is thus another 'lordly' character, both by his conceptual associations and by his traditional epithet.
  2B Mitra, a god of likely Indo-Iranian date (Thieme 1975), most often

13 Original text: *dvandvaṃ tasyāstu taj jajñe* ***mitraś*** *ca* ***varuṇaś*** *ca ha // tayor ādityayoḥ sattre dṛṣṭvāpsarasam urvaśīm /* ***retaś caskanda tat kumbhe nyapatad*** *vāsatīvare // tenaiva tu muhūrtena vīryavantau tapasvinau /* ***agastyaś*** *ca vasiṣṭhaś ca tatrarṣī saṃbabhūvatuḥ / bahudha patite śakre kalaśe 'tha jale sthale / sthale vasiṣṭhastu muniḥ saṃbhūta ṛṣisattamaḥ //* ***kumbhe*** *tv* ***agastyaḥ sambhūto*** *jale matsyo mahādyutiḥ / udiyāya tato* ***'gastyah*** *śamyāmātro mahāyaśaḥ // mānena saṃmito yasmāt tasmān* ***mānya*** *ihocyate / yad vā* ***kumbhād ṛṣir jātaḥ*** *kumbhenāpi hi mīyate // kumbha ity abhidhānaṃ tu parimāṇasya lakṣyate.*

14 On the long-debated issue of the meaning of Vedic *ásura-*, cf. Hale (1986) in general, and in particular p. 52: "(In the family books of the RV,) [a]n asura seems to be some sort of leader who is respected and has at his command some fighting force. […] Such a lord can be either a god or a human, but since the RV is a collection of hymns to gods, *ásura-* occurs much more often of gods in that text".

mentioned as Varuṇa's friend in the RV, almost never occurring without him (Macdonell 1897: 29). Even though Varuṇa and Mitra form a formulaic and ritual pair and share several of their features, the latter is more closely associated with the concept ALLIANCE: "[w]hile Varuṇa governs relations in which one person has authority over another, Mitra governs relations defined by mutual obligations. These two kinds of relationships overlap with one another, so […] the functions of Mitra and Varuṇa likewise often coincide" (Jamison & Brereton 2014: 43–44; cf. Macdonell 1897: 30). This characterization is further supported by the name of this god, as Vedic *Mitrá-* is identical to *mitrá-*, a formation of certain Proto-Indo-Iranian date (*EWAia*, s.v.), which may mean either 'friend' (if masculine) or 'alliance' (if neuter).

3 Agastya is BORN FROM THE SEMEN of both Varuṇa and Mitra, COLLECTED and mixed in a POT. While this narrative device has parallels in the birth stories of other characters (cf. Patton 1996: 264–266), the detail of the pot used as a vessel in which the bodily fluids are collected and mixed is rather peculiar.

5 Agastya is associated with INTELLECTUAL POWER: his patronymic or epithet *Mān-yá-* means '(child or person) of *Mā́n-a-*', a name that may refer either to Agastya's father or to Agastya himself (see above and fn. 10), and a formation that is identical to the noun *mā́n-a-* 'opinion, notion, conception' (*EWAia*, s.v. *mā́na-*). The latter may be traced back to **món-o-* 'thought, cognition', an action noun (of the so-called *tómos* type) of PIE **men-* 'mental power', a root also found in, e.g., Vedic *mán-tra-* 'poetic formula' and Greek *mén-os* '(mental) power'.

The second Indic narrative discussed here is the myth of Agastya Mānya's mediation in a conflict between Indra and the Maruts (on which see, e.g., Sieg 1902: 108–119), chiefly attested by a series of hymns from the first book of the RV (1.165, 170 and 171) that are traditionally ascribed to Agastya himself. The plot goes as follows:[15] Agastya prepares a sacrifice to the Maruts, but Indra, noticing that he is not being offered anything, reaches the sacrificial terrain first and reproaches Agastya, who tries to appease him – in vain.

15 This presentation of the myth broadly follows the one in Jamison & Brereton (2014: 360).

> [**Indra**:] "**Now is there nothing? And tomorrow nothing?** Who understands this (nothing), which is unmistakable (to me)? The thought of another can be bewitched and what he expected is lost." **[Agastya:] "Are you going to strike us down,** Indra? **The Maruts are your brothers**. **Make a proper arrangement with them**. Do not strike us down in your confrontation (with them). […] You are the foremost institutor **of alliances**, o **lord** of **alliances** [***mitrā́ṇām mitrapate*** *dháyiṣṭhaḥ*]. **O Indra**, **come to an agreement with the Maruts**, and then **eat the oblations in the proper ritual order.**" (RV 1.170.1–2; 5*bcd*)[16]

Understandably afraid of the Indic warrior-god, Agastya thus ends up rerouting his offering towards Indra; at this point, however, summoned by the sacrifice, the Maruts reach the scene, and, in the next passage quoted below (from RV 1.171), Agastya explains to them that their portion has been hijacked by Indra. In the second quotation (from RV 1.165), a stand-off between Indra and the Maruts takes place, each of them verbally attacking the other with violent accusations and trying to appear worthiest of Agastya's offering: as expected, Indra boasts that the malicious serpent Vṛtra could only be defeated thanks to his strength, and no one else's; the Maruts, in turn, rebuke him by saying that many of Indra's deeds were actually a collaborative effort.

> [Agastya:] "(Then was) I retreating from this mighty one, **Maruts**, trembling from fear of **Indra**. These oblations (of soma) were sharpened for you, but we have sent them away. Have mercy upon us!" (RV 1.171.4)[17]

> [**Indra**:] "Where was this independent will of yours, **Maruts**, when you tasked me alone to smash the serpent? For I, the powerful and mighty, possessed of might, humbled with my weapons those of every rival. [**Leader of the Maruts**:] **You did many things when we were there**, with our united manly powers (ready) to be deployed, o bull; we shall do many things in accordance with your purpose, o most powerful Indra, **when we, o fellow**

16 Original text: ***ná nūnám ásti nó śuváḥ*** / *kás tád veda yád ádbhutam* / *anyásya cittám abhí saṃcaréṇiyam* / *utā́dhītaṃ ví naśyati* // ***kím na*** *indra* ***jighāṁsasi*** / ***bhrā́taro marútas táva*** / ***tébhiḥ kalpasva sādhuyā́*** / *mā́ naḥ samáraṇe vadhīḥ* // […] *tvám* ***mitrā́ṇām mitrapate*** *dháyiṣṭhaḥ* / ***índra tuvám marúdbhiḥ sáṁ vadasva*** / *ádha* ***prā́śāna ṛ́tuthā́ havī́ṁṣi***.

17 Original text: *asmā́d aháṃ taviṣā́d ī́ṣamāṇa* / ***índrād*** *bhiyā́* ***maruto*** *réjamānaḥ* / *yuṣmábhyaṃ havyā́ níśitāni āsan* / *tā́ni āŕé cakṛ́mā mṛ́ḷátā naḥ.*

> **Maruts, shall wish it.** [**Indra**:] **O Maruts, I smashed Vṛtra with my Indrian strength**, having become mighty through my own rage. Bearing my mace in my arms, I made these all-gleaming waters go easily to Manu." (RV 1.165.6–8)[18]

Finally, in the next passage below (also from RV 1.165), the Maruts concede to Indra that he is indeed the most powerful being, the two parties reconcile and agree to share Agastya's offering. Correspondingly, in the second passage below from a later source (the *Maitrāyaṇī-Saṃhitā*), we learn that the recitation of Agastya's poetry (referred to as *Kayāśubhā-Sūkta*) is essential for a king who wants to be reconciled with his own rebellious subjects (cf. Amano 2009, ad loc.).

> [**Leader of the Maruts**:] "This is conceded to you, generous one: **There is no one like you known among the gods. Neither one who is born nor one who was born will attain you**. What you will do, do!—o you who are grown fully strong. [**Indra**:] Even if I am alone, let my force be far ranging (to do) what in my daring I shall now do according to my inspired thinking, for I am known as the powerful one, Maruts. What things I shall set in motion, just **I, Indra, am master of these**. The praise song here has exhilarated me, **o Maruts**, the formulation worthy to be heard that you created for me, o men—for me, **(who am) Indra**, the bull and strong combatant—**for (me), your friend as my friends/allies** [***sákhye sákhāyas***], for me myself by you yourselves. It is just so: Reflecting me here and receiving fame and refreshments as my irreproachable (warrior band), you, who are to be seen all around with your shimmering colors, **have pleased me, and you will please me now**, **o Maruts**." (RV 1.165.9–12)[19]

18 Original text: *kúva syā́ vo **marutaḥ** svadhā́ āsīd / yán mā́m ékaṃ samádhattāhihátye / ahám hí ūgrás taviṣás túviṣmān / víśvasya śátror ánamaṃ vadhasnaíḥ // **bhū́ri cakartha** yújiyebhir **asmé** / samānébhir vṛṣabha paúṃsiyebhiḥ / bhū́rīṇi hí kṛṇávāmā śaviṣṭha / índra krátvā **maruto yád váśāma** // **vádhīṃ vṛtrám maruta indriyéṇa** / svéna bhā́mena taviṣó babhūvā́n / ahám etā́ mánave viśváścandrāḥ / sugā́ apáś cakara vájrabāhuḥ.*

19 Original text: *ánuttam ā́ te maghavan nákir nú / **ná tvā́vāṁ́ asti devátā vídānaḥ** / **ná jā́yamāno náśate ná jātó** / yā́ni kariṣyā́ kṛṇuhí pravṛddha // ékasya cin me vibhú astu ójo / yā́ nú dadhṛṣvā́n kṛṇávai manīṣā́ / ahā́m hí ūgró maruto vídāno / yā́ni cyávam **índra** íd **īśa eṣām** // ámandan mā **maruta** stómo átra / yán me naraḥ śrútiyam bráhma cakrá / **índrāya** vṛ́ṣṇe súmakhāya máhyaṃ / **sákhye sákhāyas** tanúve tanū́bhiḥ // evéd eté práti mā rócamānā / ánediyaḥ śráva éṣo dádhānāḥ / saṃcákṣiyā **marutaś** candrávarṇā / **áchānta me chadáyāthā ca nū́nám**.*

> **For the Maruts** he should spread a seven-bowl [sacrificial cake] where **a people tries to do violence to a king**. The Kayāśubhā[-Sūkta] of Agastya [i.e., RV 1.165.1–15] should be used […]. A seven-bowl [sacrificial cake] is used, because the Maruts are seven, **the Maruts are the people** [***víñ marútaḥ***]; with the portion due to them, he calms them down (those involved) (*Maitrāyaṇī-Saṃhitā* 2.1.8(4): 10,7–11; my translation, based on Amano 2009).[20]

These texts on the conflict between Indra and the Maruts allow us to identify a few further parallels between Agastya's myth and the Norse narrative of Kvasir (2, 4, 6):

2 Agastya appears to be CLOSE TO TWO DISTINCT PARTIES, a MALE CHARACTER AND A MALE SOCIAL GROUP, namely:
   - 2A Indra, the other god who is most closely associated with LEADERSHIP in the RV beside Varuṇa, although in a slightly different way: e.g., "[i]n IV.42, as in the later Rājasūya, the king becomes both Varuṇa and Indra; that is, as Varuṇa, the king is a judicial authority governing the actions of his subjects, and as Indra, he is a leader in war" (Jamison & Brereton 2014: 43). Within his relationship to the Maruts, he is of course the god of HIGHER STATUS, as both the LEADER of their warband and as the mightiest of all gods in general.
   - 2B The Maruts, a group of warrior gods who are Indra's FRIENDS/ALLIES (*sákhāyas* in RV 1.165.11 above) in his heroic deeds against the serpent Vṛtra and other enemies (cf. his epithet *marúd-gaṇa-* '[the one] with the Maruts as troop'), but also his subjects, being gods of LOWER STATUS than him. Since Indra is invoked with the epithet *mitra-pate* "o lord of alliances/friends" (RV 1.170.5*b*), it may even be possible to refer to the Maruts as Indra's *mitrá-* 'friends, allies', a close lexical correspondence with the aforementioned myth of Agastya's birth from Varuṇa and the god called *Mitrá-*.

4 Agastya mediates in the RESOLUTION OF A CONFLICT between Indra and the Maruts, after which the two parties resume their RELATIONSHIP BASED ON INEQUALITY, but also MUTUAL OBLIGATIONS: while the Maruts

20 Original text: ***mārutáṁ*** *saptákapālaṃ nírvaped yátra* ***víḍ rā́jānaṃ jíjyāset*** */ agástyasya kayāśubhī́yaṁ sāmidhenī́ś ca syúr yājyānuvākyā́ś ca / agástyo vaí marúdbhya ukṣṇáḥ praúkṣat / tā́n índrāyā́labhata / té vájram ādā́yābhyàpatan / tā́n vā́ eténāśamayat / táñ śamáyaty evaíténa / saptákapālo bhavati / saptá hí marútas /* ***víñ marútaḥ*** */ svénaivaínān bhāgadhéyena śamayati.*

Feature		Represented by	
1 Male character		Agastya Mānya	
		Born from	*Close to*
2 Born from and/or close to both:	**A** LEADERS of HIGHER STATUS	Varuṇa *ásura-* (PIE **h₂ens-u-* 'lord')	Indra
	B FRIENDS/ALLIES of LOWER STATUS	Mitra (*mitrá-* 'friend')	Marut
3 BORN from **2A+2B**'s BODILY FLUIDS collected in VESSEL		Semen collected in pot	
4 Linked to RESOLUTION OF CONFLICT between **2A+2B**			Solves conflict
5 Connection with concept MENTAL POWER		*Mān-yá-*, *Mā́n-a-* (PIE root **men-* 'm. p.')	
6 Association with VERBAL ART		One of the foremost poets of the RV	

TABLE 2. Relevant elements of the Indic myths of Agastya

recognize Indra as their superior, the god is also said to be "establishing himself as the strong one through (the Maruts) bearing their good signs" (RV 1.171.6*c supraketébhiḥ sāsahír dádhāno*) and the Maruts are described while "chanting their chant, generating Indra's strength" (RV 1.85.2*c árcanto arkáṃ janáyanta indriyám*). The support of the Maruts is thus essential to Indra's role as the strongest god. Correspondingly, Agastya's hymns were used in ritual practice for the RESOLUTION OF A CONFLICT between a KING and his rebellious SUBJECTS, as attested in the *Maitrāyaṇī-Saṃhitā*.

6 Agastya is closely associated with POETRY: a legendary poet-priest ("one of the great masters of the Ṛgvedic tradition", as per Jamison & Brereton 2014: 360), he is the author of the hymns 1.165–191 of the RV, including the ones discussed above.

The correspondences between the Indic mythology of Agastya and the Norse narrative about Kvasir may be summarized as follows: a male character is born from the bodily fluids, collected and mixed together in a vessel, of one god who is referred to as 'lord' (a term reflecting PIE **h₂ens-u-*/*h₂ṇs-u-*) and one who is referred to as 'friend'. The same character, closely associated with intellectual power and verbal art, has an essential role in the resolution of a conflict between a leader of higher status and a group of friends/allies of lower status, whose relationship is based on inequality and mutual obligations. These elements may be summarized as in Table 2.

In the next section, the elements identified in the Norse and Indic traditions will be shown to have further parallels in the Roman narrative of Agrippa Menēnius.

3 Rome: Patricians, Plebeians, and the birth and deeds of Agrippa Menēnius

The last tradition to be discussed comprises the Roman accounts of the first conflict between the two main social groups of early Rome, Patricians and Plebeians. This dispute, according to tradition, took place in 494 BCE, not very long after the alleged date of abolition of the monarchy and institution of the Roman Republic (509 BCE). It was the first critical moment for the young republican state, which was only able to survive this crisis thanks to the verbal prowess of a great *orator* called Agrippa Menēnius Lanātus.[21] Our earliest attestations of this narrative (cf., e.g., Müller 2006) occur in Livy's *Annals from the Foundations of the City* (2.32–33) and Dionysius of Halicarnassus's *Roman Antiquities* (6.83–86), both written in the 1st century BCE, several centuries after the supposed date of the episode. It is thus conceivable that the story, even if it had been originally based on historical events (a hypothesis which can neither be proved nor disproved), acquired mythological narrative structures and details during the course of its long oral tradition.

> Assuredly no hope was left save in **harmony amongst the citizens** [***concordia civium***], and this they concluded they must restore to the state by fair means or foul. **They** (**the patricians**) therefore decided **to send as an ambassador to the commons Menēnius Agrippa, an eloquent man and dear to the plebeians because he was one of them by birth** [***facundum virum, et quod inde oriundus erat, plebi carum***]. On being admitted to the camp he is said merely to have related the following apologue, in the quaint and uncouth style of that age: **In the days when man's members did not all agree amongst themselves**, as is now the case, but had each its own ideas and a voice of its own, **the other parts** thought it unfair that they should have the worry and the trouble and the labour of providing everything **for the belly, while the belly** remained quietly in their midst with nothing to do but to enjoy the good things which they bestowed upon it; they therefore **conspired together** that the hands should carry no food to the mouth, nor the mouth accept anything that was given it, nor the teeth grind up what they received. While they sought in this angry spirit **to starve the belly into submission**,

21 Even though *Agrippa* is exclusively attested as a *cognomen* later in Roman history (e.g., Augustus's associate was called *Marcus Vipsanius Agrippa*), among the Menēnii family it was still used as a praenomen (thus *Agrippa Menēnius Lanatus*), cf. Müller (2006).

the **members themselves and the whole body** were reduced to the utmost weakness. Hence it had become clear that even **the belly had no idle task to perform, and was no more nourished than it nourished the rest** […]. Drawing a parallel from this to show how **like was the internal dissension of the bodily members to the anger of the plebs** against **the Fathers**, **he prevailed upon the minds of his hearers**. (Livy 2.32)[22]

That same year saw the death of Menēnius Agrippa, a man who throughout his life had been **equally beloved by patricians and plebeians** [***vir omni in vita pariter patribus*** *ac* ***plebi carus***], and who after the secession was **even dearer to the commons** [***carior plebi***]. This **mediator and umpire of civil harmony** [***interpreti arbitroque concordiae civium***]**,** this **ambassador of the senators to the people** [***legato patrum ad plebem***], this **restorer of the plebs to Rome** [***reductori plebis Romanae in urbem***], did not leave sufficient wealth to pay for a funeral. He was buried **by the commons**, who contributed a sextans each to the cost. (Livy 2.33)[23]

(Menēnius speaking to the Plebeians:) "It is the assurance that introduces the common advantage and **preserves both parts of the state through their mutual assistance** [***di' allḗlōn amp^{h}ótera poioûsa sṓzest^{h}ai tà mérē***]. […] For **the ignorant multitude** [***amat^{h}ès plẽt^{h}os***] will always need and never cease to need **prudent leadership** [***émp^{h}ronos hēgemonías***], **while the sen-**

22 Original text: *Nullam profecto nisi in* ***concordia civium*** *spem reliquam ducere; eam per aequa per iniqua reconciliandam civitati esse. Placuit igitur* ***oratorem ad plebem mitti Menenium Agrippam, facundum virum, et quod inde oriundus erat, plebi carum****. Is intromissus in castra prisco illo dicendi et horrido modo nihil aliud quam hoc narrasse fertur:* ***tempore quo in homine non, ut nunc, omnia in unum consentiant****, sed singulis membris suum cuique consilium suus sermo fuerit, indignatas* ***reliquas partes*** *sua cura suo labore ac ministerio* ***ventri*** *omnia quaeri,* ***ventrem*** *in medio quietum nihil aliud quam datis voluptatibus frui;* ***conspirasse*** *inde ne manus ad os cibum ferrent, nec os acciperet datum, nec dentes quae acciperent conficerent. Hac ira dum* ***ventrem fame domare*** *vellent, ipsa* ***una membra totumque corpus*** *ad extremam tabem venisse. Inde apparuisse* ***ventris*** *quoque* ***haud segne ministerium esse, nec magis ali quam alere eum*** […]. *Comparando hinc quam* ***intestina corporis seditio similis esset irae plebis in patres, flexisse mentes hominum****.*

23 Original text: *Eodem anno Agrippa Menenius moritur, vir omni in vita* ***pariter patribus ac plebi carus****, post secessionem* ***carior plebi*** *factus. Huic* ***interpreti arbitroque concordiae civium, legato patrum ad plebem, reductori plebis Romanae in urbem****, sumptus funeri defuit; extulit eum* ***plebs*** *sextantibus conlatis in capita.*

ate, which is capable of leadership, will always need multitudes willing to be ruled [*tò d' hēgeīst^{h}ai dunámenon bouleutḗrion tō̃n árk^{h}est^{h}ai bouloménōn ók^{h}lōn*]" (Dionysius of Halicarnassus 6.85)[24]

These passages on Agrippa's birth and deeds allow for the identification of five parallels (1–2 and 4–6) with the Norse and Indic traditions discussed above:

1 Agrippa Menēnius is the MALE PROTAGONIST of this narrative.

2 He is EQUALLY CLOSE TO (*pariter carus*) and most likely also BORN FROM (see below) the TWO MAIN SOCIAL GROUPS of early Roman society:

2A The Patricians, also referred to as the 'Fathers' (*patres*) in our texts. This group of HIGHER STATUS detained the LEADERSHIP of the Roman Republic, being the only citizens who were originally allowed to become members of the Senate (cf., e.g., Dionysius of Halicarnassus 2.12). Agrippa Menēnius is referred to as "ambassador of the senators to the people" (*legato patrum ad plebem*) and as a former consul, an office that was exclusively held by Patricians up until 367 BCE (when the *Leges Liciniae Sextiae* made it possible for Plebeians to become consuls),[25] implying that he is himself both a senator and a Patrician.

2B The Plebeians, also referred to as the 'people' or 'multitude' (Latin *plebs*; Greek *plē̃t^{h}os*) in our texts. They were the social group of LOWER STATUS in Rome, bound to the Patricians by the ideology of the 'harmony of citizens' (Latin *concordia civium*), i.e., the ALLIANCE between the two main social groups of Roman society. According to our texts, Agrippa Menēnius was "dear to the plebeians because he was one of them by birth" (*quod inde oriundus erat, plebi carum*), which, however, contradicts the fact that, having been a consul and senator, Agrippa must have also been a Patrician.

It is thus reasonable to assume that the Roman protagonist Agrippa was regarded as a person born from both Patricians and Plebeians, matching the main character of the Norse myth, the god Kvasir, who was born from

24 Original text: ἡ τὸ κοινῇ συμφέρον εἰσάγουσα καὶ **δι' ἀλλήλων ἀμφότερα ποιοῦσα σώζεσθαι τὰ μέρη**. […] δεήσεται γὰρ ἀεὶ καὶ οὐδέποτε παύσεται δεόμενον **τὸ μὲν ἀμαθὲς πλῆθος ἔμφρονος ἡγεμονίας, τὸ δ' ἡγεῖσθαι δυνάμενον βουλευτήριον τῶν ἄρχεσθαι βουλομένων ὄχλων**.

25 Cf. Capogrossi Colognesi (2007: 118). I am grateful to Andrea Faraci for references and discussion regarding both this specific issue and Patrician–Plebeian relationships in general.

both tribes of gods, Æsir and Vanir.

4 Agrippa Menēnius mediates in the RESOLUTION OF A CONFLICT between Patricians and Plebeians, after which the two groups resume their RELATIONSHIP BASED ON INEQUALITY, but also MUTUAL OBLIGATIONS, as is clear from Menēnius's speech in both Livy and Dionysius (in the latter, e.g., "both parts of the state" are said to be preserved "through their mutual assistance"); this hierarchical but reciprocal bond not only resembles PATRON–CLIENT RELATIONSHIPS, but was explicitly said to reflect such relations. As pointed out to me by Andrea Faraci (p.c.), the following passage from Dionysius places individual PATRON–CLIENT RELATIONSHIPS between each Patrician family and several Plebeian ones at the foundation of the dyadic partition of early Roman society:

> He [Romulus] placed the plebeians as a trust in the hands of the patricians, **by allowing every plebeian to choose for his patron any patrician whom he himself wished**. […] But Romulus not only recommended the relationship by a handsome designation, **calling this protection of the poor and lowly a "patronage**," but he also assigned friendly offices to both parties, thus making the connection between them a bond of kindness befitting fellow citizens. (Dionysius of Halicarnassus 2.9)[26]

5 Agrippa Menēnius is associated with INTELLECTUAL POWER: apart from the obvious political intelligence that he displays in the narrative, Agrippa's family name *Mĕnēn-ĭus* is also a reflex of the same PIE root **men-* 'intellectual power' (cf. Latin *mēn-s* 'mind') attested by Agastya's epithet or patronymic *Mānyá-* (on which see section 2 above). More precisely, Latin *Mĕnēn-ĭus* is a derivative with suffix *-ĭo-* of **mĕnē-no-*, which may in turn be a reflex of **mĕnĕs-no-* 'provided with mental power', a derivative of the same PIE noun **mén-es-*/*-os-* 'mental power' reflected by Greek *ménos* '(mental) power' and Vedic *mánas-* 'mind, intellect'. On the one hand, Latin **mĕnē-no-* would thus be a formation of the same derivational type as Lat. *vĕnē-nu-m* 'poison' from **vĕnĕs-no-* 'love potion' (a derivative of *venus* 'love'). On the other hand, it would also have an etymological corre-

26 Original text: παρακαταθήκας δὲ ἔδωκε τοῖς πατρικίοις τοὺς δημοτικοὺς **ἐπιτρέψας ἑκάστῳ τῶν ἐκ τοῦ πλήθους, ὃν αὐτὸς ἐβούλετο, νέμειν προστάτην** […]. ὁ δὲ Ῥωμύλος ἐπικλήσει τε εὐπρεπεῖ τὸ πρᾶγμα ἐκόσμησε **πατρωνείαν ὀνομάσας τὴν τῶν πενήτων καὶ ταπεινῶν προστασίαν**, καὶ τὰ ἔργα χρηστὰ προσέθηκεν ἑκατέροις, καὶ φιλανθρώπους καὶ πολιτικὰς ἀπεργαζόμενος αὐτῶν τὰς συζυγίας.

Feature		Represented by
1 Male character		Agrippa Menēnius
2 Born from both:	**A** LEADERS of HIGHER STATUS	Patricians
	B FRIENDS/ALLIES of LOWER STATUS	Plebeians
3 BORN from **2A+2B**'s BODILY FLUIDS collected in VESSEL		
4 Linked to RESOLUTION OF CONFLICT between **2A+2B**		Solves conflict
5 Connection with concept MENTAL POWER		**menes-no-* 'provided with m. p.'
6 Association with VERBAL ART		Uses rhetoric; tells a fable

TABLE 3. Relevant elements of the story of Agrippa Menēnius.

spondence in a similar onomastic formation, albeit with a different suffix, namely Latin *Minerva* or *Menerva* 'goddess of intelligence', the likely reflex of **měněs-u̯ā-* 'provided with mental power' (as per Rix 1981: 117ff and de Vaan 2008: 380–381; *aliter* Walde & Hofmann 1930–1954, s.v.).

6 Of course, Agrippa Menēnius is also closely associated with VERBAL ART: he is described as an "eloquent man" (*facundus vir*), who is able to convince the Plebeians to resume their relationship with the Patricians by telling a fable, 'The Belly and the Members'. This fable was not just some bedtime story for Roman children, but rather a reflex of the deep influence of Ancient Greek (Hellenistic) political thought and rhetoric on Roman culture (cf. Nestle 1927), and thus a further token of Agrippa's verbal art (on which see also Lincoln 1989: 145–148).

To sum up, the Roman legend of Agrippa Menēnius has several parallels in the Norse myth of Kvasir and in the Indic myths of Agastya: Agrippa is a male character who is (likely) born from two different social groups, a higher-status group associated with the concept of leadership and a lower-status group that is linked to the former by means of an alliance. Agrippa's family name *Menēnius* is etymologically linked to the idea of intellectual power, and he is able to use complex verbal art in order to heal the fracture between the two social groups, allowing them to resume a relationship based on inequality and mutual obligations. These elements are schematically summarized in Table 3.

4 Mythological and linguistic parallels: the Leaders, their Friends, and the Intelligent Speaker

As shown in the previous sections, these IE traditions have a number of parallels in their structure, narrative, and onomastics, allowing for the reconstruction of an inherited mythological tradition that underlies them all. The following elements are shared by all or at least two (when explicitly noted) of the three traditions analysed above:

1 A MALE PROTAGONIST: Norse Kvasir; Indic Agastya Mānya; Roman Agrippa Menēnius.
2 The protagonist is CLOSE TO and BORN FROM TWO DISTINCT MALE CHARACTERS or SOCIAL GROUPS, who together form a well-established traditional pair/partition in each culture:
   2A The LEADER(S): Norse Æsir; Indic Varuṇa and Indra; Roman Patricians. A male character or social group of HIGHER STATUS, associated with LEADERSHIP and with a reflex of the PIE term *h_2ens-u-/$h_2ṇs$-u- (Old Norse *Æs-ir*; Vedic *ásu-ra-*).
   2B Their FRIEND(S): Norse Vanir; Indic Mitra and Maruts, respectively; Roman Plebeians. A male character or social group of LOWER STATUS, associated with the concept ALLIANCE, even by name (Old Norse *Van-ir*, if related to *vinr* 'friend'; Vedic *Mitrá-* 'Friend').
3 The protagonist is BORN from the BODILY FLUIDS (Norse SPIT; Indic SEMEN) OF BOTH LEADER(S) AND FRIEND(S), collected and mixed in a VESSEL (Norse VAT; Indic POT).[27] This peculiar detail may be the reflex of a well-known ritual complex, see below.
4 He is associated with the RESOLUTION OF A CONFLICT between the LEADER(S) and their FRIEND(S) (Norse Kvasir is born as a result thereof, whereas Indic Agastya and Roman Agrippa are agents of the resolution), after which the two parties either initiate or resume a RELATIONSHIP BASED ON INEQUALITY BUT ALSO MUTUAL OBLIGATIONS, i.e., a PATRON–CLIENT RELATIONSHIP (explicitly referred to as such in the texts of the Roman tra-

27 As noted by Matthias Egeler (p.c.), the use of a vessel may be seen as a logically necessary element of the 'mixed fluids' motif, rather than as a genuinely independent point; this is not necessarily true, however, as the bodily fluids could have been mixed without a vessel too: this is the case, for example, in the Indic myth of the birth of the god Skanda from the mixed seed of the gods Śiva and Agni in the Sanskrit epic *Mahābhārata* (13.83–84).

dition). This element supports the hypothesis that, at least within this inherited mythological tradition, the LEADER characters acted as a narrative counterpart to the patrons of IE society, whereas the FRIEND characters were the counterpart to the clients.

5 The protagonist is associated with INTELLECTUAL POWER: Norse Kvasir is referred to as the "wisest of all beings"; both Indic Agastya's patronymic/epithet *Mānyá-* and Roman Agrippa's family name *Menēnius* can ultimately be traced back to the same PIE root **men-* 'mental power'.

6 He is associated with VERBAL ART: in Norse, 'Kvasir's blood' is a poetic periphrasis for POETRY itself; Indic Agastya Mānya and Roman Agrippa Menēnius are both experts of verbal art (Agastya's POETRY, Agrippa's RHETORICS and FABLE) who skillfully use it in order to HEAL THE FRACTURE between LEADER(S) and FRIEND(S).[28]

The numerous parallels between these three IE traditions may be summarized as in Table 4.

Before moving on to the conclusion, three considerations are in order. Firstly, the parallels between Indic LEADER-characters Varuṇa and Indra on the one hand, and their FRIEND-characters Mitra and the Maruts on the other, do not point to an original identity of any of these characters: even though these gods have similar associations and assume similar roles within these specific mythological narratives, they do not seem to share many other features. Gods are more than characters in a myth, and similar narratives may be attached to different gods, if their characterizations allow it: in this case, an inherited IE traditional narrative involving a pair LEADER(S)–FRIEND(S) may have been attached independently to the fixed pairs Varuṇa–Mitra and Indra–Maruts simply because their associations with specific concepts (LEADERSHIP–ALLIANCE, respectively) allowed it. This is not to say that such mythological pairs are interchangeable, but one should keep in mind that the real protagonist of this IE myth is the male character associated with INTELLECTUAL POWER and VERBAL ART, whose identity is discussed in the conclusion.

Secondly, the story of Roman protagonist Agrippa Menēnius takes place in 494 BCE, i.e., during a period of the history of Rome which lies at the threshold between aetiological myth/legend and actual recorded events; Menēnius may

28 As pointed out by Daniel Kölligan (p.c.), this use of verbal art to heal a 'social disease' parallels the well-attested use of verbal art to heal actual diseases within Indo-European traditions, on which see, e.g., Watkins (1995: 537–539).

Feature		Scandinavia	India		Rome
1 Male character		Kvasir	Agastya Mānya		Agrippa Menēnius
			Born from	*Close to*	
2 Born from and/or close to both:	A LEADERS (**h₂ens-u-*) of HIGHER STATUS	*Æsir*	Varuṇa *ásura-*	Indra	Patricians
	B FRIENDS/ALLIES of LOWER STATUS	*Vanir* (cf. *vinr* 'friend' or *vanr* 'lacking')	Mitra (*mitrá-* 'friend')	Maruts	Plebeians
3 BORN from **2A+2B**'s BODILY FLUIDS collected in VESSEL		Spit collected in vat	Semen collected in pot		
4 Linked to RESOLUTION OF CONFLICT between **2A+2B**		Born as symbol of truce		Solves conflict	Solves conflict
5 Connection with concept MENTAL POWER (PIE root **men-* 'm. p.')		Wisest of all beings	*Mān-yá-*, *Mā́n-a-* : **món-o-* (PIE **men-*)		*Menēn-ius* : **menes-no-* (PIE **men-*)
6 Association with VERBAL ART		Kvasir's BLOOD = POETRY	One of the foremost poets of the RV		Uses rhetoric; tells a fable

TABLE 4. Summary of the correspondences between the IE traditions.

thus be either a mythological character that has been historicized or an originally historical person who has been conflated with a mythological character. The latter's name may have originally been only *Menēnius* (or **Menēnus*), as suggested not only by its etymological link with Vedic *Mānyá-*, but also by the fact that, in Livy's text, the character is often mentioned with the praenomen *Agrippa* after the nomen *Menēnius* (i.e., *Menēnius Agrippa*), which does not reflect the regular praenomen–nomen–cognomen order (as if one referred to Gaius Iulius Caesar as *Iulius Gaius*). This may point to some kind of (historical) priority or (semantic) salience of *Menēnius* over *Agrippa*; however, it is also possible that Livy was just influenced by the onomastic practice of his own time, when *Agrippa* had already become a cognomen (like *Caesar*) and was thus mentioned after the family name (as in *Marcus Vipsanius Agrippa*). The intriguing detail of the initial *Ag-* occurring in both Latin *Ag-rippa* (*Menēnius*) and Vedic *Ag-ástya-* (*Mānyá-*) must remain an open question at the current state of the research, as the formal analysis and etymological history of these names are currently unclear (cf. Ernout & Meillet 1959: 18; *EWAia*, s.v. *agásti-*). Given that, apart from their *Anlaut*, the two names do not seem to have exact formal correspondences, their similarity may be due to chance; alternatively, the parallel may reflect a shared heritage that has been deformed for various possible reasons, e.g., tabooism.

Finally, the peculiar detail of (3), the COLLECTING in a VESSEL and MIXING of the BODILY FLUIDS (spit in the Norse myth and semen in the Indic one) of both LEADERS and FRIENDS may have a historical counterpart in the ritual exchanges of bodily fluids – including blood, saliva, and semen – that have been reported, e.g., among African, Caucasian, Middle Eastern, and Native North American cultures as part of ceremonies performed to initiate relations of "blood brotherhood and affine relationships of covenanted comradeship or sacrosanct amity" (Eisenstadt & Roniger 1984: 1; cf. Pitt-Rivers 1968: 410 and 1973: 127–128). It is thus conceivable that within prehistoric IE societies the bond between LEADERS and FRIENDS/ALLIES, i.e., patrons and clients, could be combined with such a relationship and correspondingly sanctioned by such a ritual exchange of bodily fluids. Given the "paradoxical contradictions" that are typical of patron–client relationships discussed in the introduction, it is not uncommon for such relations to be combined with ritual friendships: e.g., there are attestations of patron–client *amicitia* 'friendship' in Ancient Roman society (Eisenstadt & Roniger 1984: 61) or patron–client *compadrazgo* (godfather-hood) in Spanish-speaking communities (*ibid.*: 75–76).[29]

29 As noted by Bruce Lincoln (p.c.), Kvasir and Agastya, being the result of the union

5 Conclusion: the poet's role as social broker ('legitimizing inequality') in prehistoric Indo-European society

As summarized above, the IE myth that may be reconstructed by comparing the Norse, Indic, and Roman traditions involves a main character who not only is (1) MALE and (2) CLOSE TO and/or BORN FROM BOTH LEADERS (PIE **h₂ens-u-/h₂n̥s-u-*) and FRIENDS, more specifically (3) born from their BODILY FLUIDS collected and mixed together inside a VESSEL of some kind; but he is also (4) linked to the RESOLUTION OF A CONFLICT between LEADERS and FRIENDS that allows them to have a PATRON–CLIENT RELATIONSHIP, as well as (5) associated with the concept INTELLECTUAL POWER, expressed by the reflexes of the root **men-*, and (6) with VERBAL ART of some kind, which he actively uses to heal the fracture between LEADERS and FRIENDS.

The last elements (4–6) deserve a closer look, as they allow for a possible identification of the prehistoric social category reflected by the 'intelligent speaker' of this reconstructed myth: the poet, the natural protagonist of a narrative that clearly was an aetiological myth about the origin of poetry and verbal art and about their function within (Proto-)Indo-European society. Firstly, the Old Norse passage analysed above explicitly attests that in Scandinavia this traditional narrative could serve as the answer to the question "How did this craft that you call poetry originate?" (see above). Furthermore, linguistic support for this identification comes from the etymological analyses of Agastya's epithet/patronymic *Mānyá-* and of Agrippa's family name *Menēnius*, both of which may be traced back to the PIE root **men-* 'intellectual power': this root, referring to the trained minds of poets, was traditionally linked to verbal art in early Indo-European traditions (and thus probably already in PIE), cf. the following quotation by Watkins concerning Vedic and Ancient Greek (see also Fortson 1998: 138, West 2007: 33–35, as well as Katz 2018a: 127–129 and 2018b):

> Note that the words for the poet's understanding (*manīṣá́*) and wisdom (*mánma* = Old Irish *menmae* 'mind'), and the remembering (*manvata*) the 3×7 secret names of the cow which is Vedic poetics itself, are all derivatives of the root **men-* expressing active mental force, thinking, perceiving, re-

between the bodily fluids of males mixed in a vessel without any maternal contribution, exemplify in their very essence the union between two entities more equal in status and power than was the case in any marital or heterosexual union, from the perspective of the patriarchal societies in which these stories were told.

> membering. So too is Greek Μοῦσα (Aeolic Μοῖσα) 'Muse', daughter of Zeus and Mnemosyne 'Memory': Proto-Greek **montwa* from **mon-tu-h*$_2$, cf. Vedic *mántu-*, *amantú-* '(un)caring, (un)mindful'. The inspiration of the divine Muse is thus only a personification of the trained mind of the poet. (Watkins 1995: 73)

The interpretation of the main character of this reconstructed myth as a reflex of the prehistoric social figure of the poet allows us to better frame and understand his mythological role as a mediator between the LEADER characters and the FRIEND characters. More precisely, this detail may reflect one of the most important functions of poets in (Proto-)Indo-European society, namely their role as mediators between patrons and clients. On the one hand, poets could praise patrons for their positive impact on the lives of their clients (including themselves) and use their rhetoric skills to encourage clients to be obedient towards their own patrons, justifying Anthony's (2007: 342) definition of the institution of patron–client relationships as a "way of legitimizing inequality". On the other hand, poets could encourage patrons to be munificent to their clients (cf. the quote from Anthony 2007 below) and use their elaborate verbal art to reproach and scold patrons who did not behave generously towards their own clients – e.g., those who did not adequately reward praise poetry (cf. the quote from Watkins 1995 below).

> **Praise poetry** at public feasts **encouraged patrons to be generous**, and validated the language of the songs as a vehicle for communicating with the gods who regulated everything. (Anthony 2007: 343)

> The reciprocal situation of **poet and patron** may have a negative side as well. **Generosity leads to praise**, but **ungenerous payment can provoke blame, invective, and satire**, the "formidable weapon" (Binchy 1940: 69) of poets from India and Greece to Ireland. (Watkins 1995: 75)

As long argued within sociological theory, dyadic figures are latent triangles (Fischer 2004: 80; Krämer 2015: 82). In other words, dual social structures such as patron–client relationships often entail a 'third figure' who acts as a mediator between the two poles; as noted by Krämer (2015: 81), "[t]hirdness" is the "[n]ucleus of [s]ociality: […] [t]he messenger makes a social relation possible between people who are distant from one another". English *broker* or *social broker* is the term used by sociologists and anthropologists to refer to the social figure who, just like

our IE (mythological) INTELLIGENT SPEAKERS and (historical) poets, not only "mediates between the patron and client and is seen by the others as necessary for a satisfactory outcome", but also, "[b]ecause of his vital role as intermediary, […] takes on aspects of both patron and client" (Wilson 1990: 163), a detail that is mythologically exemplified in our texts by the double lineage of Norse Kvasir, Indic Agastya, and Roman Agrippa. The (social) broker has also been defined as a person who "bridges gaps in communication between persons, groups, structures and even cultures" and as "a professional manipulator of people and information to bring about communication" (Boissevain 1969: 380), all descriptions that nicely fit the INTELLIGENT SPEAKERS Agastya and Agrippa of the Indic and Roman myths analysed above. Thus, according to this interpretation, all three main actants of the IE myth reconstructed above may have had real-life counterparts in the IE social institution of patron–client relations: the LEADERS are the mythological counterparts to the patrons; the FRIENDS/ALLIES are counterparts to the clients; and the INTELLIGENT SPEAKERS reflect the social role of the poets as social brokers mediating between the two sides.

As a final caveat, it should be noted that this triadic structure is in no way reminiscent of Dumézilian trifunctionalism. No functional distinctions between LEADERS/patrons and FRIENDS/clients may be reconstructed by means of the comparative analysis of the IE myths: both LEADERS (1st function 'sovereignty' in Dumézil's theory) and FRIENDS are also warriors (2nd function), and neither has closer associations with fertility (3rd function) compared to the other. Finally, the INTELLIGENT SPEAKER is not really a member of a different social group, but is actually close to both parties, and even biologically belongs to both (as mythologically exemplified by his BIRTH FROM MIXED BODILY FLUIDS). The absence of any reconstructable traces of functional tripartition within this IE myth on patron–client relationships is consistent with the fact that the latter are purely hierarchical structures, which have no connections with labor functions and which actually display 'Russian doll–like' recursion: "[n]ested hierarchies in which clients are themselves patrons of other clients are characteristic of the growth of patron–client systems" (Anthony 2007: 360). Thus, chiefs or communities could be patrons of other chiefs or communities (e.g., the Ancient Greek poet Pindar could have a whole city as patron, cf. Watkins 1995: 61; the Roman Republic was patron to several client states called *civitates liberae*, cf. Eisenstadt & Roniger 1984: 62–64 and 247–248), while a patron's clients (regardless of their occupation) could have people of lower status as clients of their own (e.g., poets acted as clients to their human lords, but the latter acted as clients to the gods, cf. Watkins 1995: 70 and passim, Jackson 2016).

To sum up, the comparative analysis of the mythological traditions discussed above allows for the following reconstruction: within early (Proto-)Indo-European society, the role of social broker (i.e., mediator) between patrons (**h₂ens-u-* 'leaders') and clients ('friends/allies') was supposed to be fulfilled by INTELLIGENT (**men-*) SPEAKERS, i.e., POETS, ideally conceived as male individuals who were equally close to both sides (even biologically so), and thus linked to the resolution of their disputes. The fact that the IE mythological tradition reconstructed here involves three main actants – LEADERS/patrons, FRIENDS/clients, and INTELLIGENT SPEAKERS/poets – should not be considered as evidence for the reconstruction of functional tripartition in PIE society, but rather as a coherent reflex of how the dual institution of patron–client relationships most likely required the 'tertiary' mediation (brokerage) of poets to function properly.

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The violent Indo-Europeans

Some general thoughts on the martial influence of the Corded Ware on Neolithic societies

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This paper wrestles with the old, but persistent, view that the appearance of Indo-European speaking groups in Europe caused radical changes in social organization, including the introduction of the idealized male warrior, increased violence and changed gender relations, replacing matrilineality and sex egalitarianism with an exogamic patrilocal family structure. The aim is not to downscale or deny the violent and warring aspects of early Indo-European societies; instead I argue that these features were not new but already well-established elements in pre-Indo-European Neolithic Europe. Hence, my aim is to nuance the view on the impact Indo-European societies had on Neolithic Europe, not by questioning the violent Indo-Europeans but the tough myth of the peaceful farmers.

The introduction of early Indo-European dialects has traditionally been related to the arrival of violent hordes of battle-axe–brandishing steppe nomads who imposed their customs, social organization and language on the resident, peaceful farmers (e.g., Glob 1945: 241–244, 1971: 106–107, Gimbutas 1993). In the somewhat controversial interpretation put forward by Marija Gimbutas, this scenario is furthermore linked with highly contrasting family structures, where the sedentary farmers were conceived as matrifocal, matrilineal and sex egalitarian, whereas the intruding steppe nomads were warlike, patriarchal and hierarchical (Gimbutas 1993: 206). Even though this scenario may appear oversimplified and naïve, it still seems to influence the way we look at the (supposed) introduction and staging of the male warrior and associated social institutions (e.g., Anthony 2007: 236–237 and 364–365, Kristiansen 2009, Kristiansen et al. 2017; see also Mallory 1989: 110–111 for a critical stand).

According to the prevalent steppe hypothesis, Proto-Indo-European developed in the Pontic–Caspian steppe between 4500 and 2500 BC, and early Indo-European spread into Europe via migrations during the early third millennium BC. The

linguistic spread of early Indo-European is usually associated with the Yamnaya, Corded Ware and Bell Beaker archaeological complexes. Individuals interred with material culture related to the Corded Ware and Bell Beaker archaeological complexes seem to inherit a significant amount of DNA from the early third millennium BC steppe populations, usually referred to as Yamnaya or steppe ancestry (Anthony 2007, Allentoft et al. 2015 and 2024, Haak et al. 2015, Olander 2019, Egfjord 2021). This process may very well have been partly violent and, as indicated by some DNA studies, male-driven (Goldberg et al. 2017, Scorrano et al. 2021).

The purpose of this paper is not to challenge the idea of the 'violent Indo-Europeans' but rather that of the peaceful farmers. If we look at the archaeological evidence from early farming societies in Europe, recent decades' excavations and interdisciplinary research clearly show that these societies were far from peaceful, but rather warlike. Thus, the overall question I will reflect upon is whether we are overestimating the violent and warring impact of the Indo-Europeanization. First, I will take a closer look at the social structure of the early Indo-Europeans. As Indo-European is a linguistic term, describing a widely spoken language family, I refer to the early Indo-Europeans as those groups who, according to the steppe hypothesis, presumably spoke early Indo-European. Second, I will consider the concepts of violence, war and warfare before I proceed with a discussion of the presence of warfare before and after the Corded Ware, i.e., before and after the supposed introduction of Indo-European traditions into Europe.

1 The social structure of the early Indo-Europeans

The social structure of early Indo-European communities is often described as male-dominated. Linguistically this has been demonstrated by the reconstruction of the Proto-Indo-European vocabulary for kinship terminology, which indicates that the Core Indo-European family (i.e., Indo-European minus Anatolian) was patrilineal and patrilocal (Olsen 2019, 2021). The household seems to comprise the 'master of the house' (grandfather), his wife, sons and daughters-in-law, unmarried daughters, and grandchildren. Marriages were exogamous. Based on aDNA and strontium/oxygen isotope analyses of individuals found in Central European Corded Ware and Bell Beaker burials, a similar family structure has been identified as the ruling principle in these societies. Genetic kinship ('core families') seems to be central in the social organization, which furthermore appears to have been exogamous and patrilocal (Haak et al. 2008, Sjögren, Price & Kristiansen 2016, Knipper et al. 2017, Mittnik et al. 2019, Sjögren et al. 2020).

This exogamic and patrilocal family structure provides an essential argument in explaining how steppe ancestry spread through Europe during the early third millennium BC. A genetic study of female and male demographics indicates that the migrations from the Pontic–Caspian Steppe to Central Europe happened over a period of multiple generations and were heavily dominated by males. By contrast, the earlier Neolithization process shows no evidence of sex-biased admixture (Goldberg et al. 2017). In the apparently male-driven migrations from the steppe, exogamy was a necessary mechanism if the migrating males wanted to establish households and communities of their own. That this process was not without potential conflicts can be seen in the Eulau multiple Corded Ware burials, Central Germany, which show lesions caused by stone axes and arrows (Haak et al. 2008, Meyer et al. 2009, Kristiansen et al. 2017: 338). Biological kinship seems to represent the basic structure in the Eulau burials, including a nuclear family. According to strontium isotope analyses, the women appear to be of a different origin compared to the males and children. The most probable scenario is that the buried individuals were victims of a raid carried out by a group of attackers, who presumably belonged to the Neolithic Schönfeld culture, as indicated by a transverse arrowhead found in the bone of a female buried in one of the graves. A proposed reconstruction of the motive relates the attack to the exogamic relations between the Corded Ware group and the local Neolithic communities, where a phenomenon such as 'honour killing' might be part of the explanation (Muhl et al. 2010: 120–123, 144–147).

That a similar exogamic and patrilocal family structure existed in other Corded Ware areas is indicated by the vast majority of male graves recorded within the Danish Single Grave culture (local variant of the Corded Ware). Male burials predominate among the single graves with a share of 57% based on the artefacts found in the graves (Hübner 2005: 632–633 fig. 454). Battle-axes, flint axes, arrowheads and blades are associated with a right-crouched position interpreted as male burials, whereas amber beads are associated with a left-crouched position interpreted as female burials. Unfortunately, it is often only the contours of the body that are preserved and very few graves contain human bones suitable for anthropological analysis and sex determination. However, anthropological analyses carried out on remains from Corded Ware burials in southern Germany and Bohemia confirm these stereotypical gender-differentiated burial customs (Gebers 1984: 90–92 and 100, Nausch 1997, Wiermann 2002: 116–117, Hübner 2005: 587 with references, Vandkilde 2006: 410–417). A highly sex-biased distribution is particularly predominant in the early phase (c. 2850–2600 BC), when close to 90% of the Danish graves contain males (Hübner 2005: 632–633 fig. 454). This

distribution fits a scenario where incoming males established exogamic relations with local Neolithic females who were perhaps buried in the megalithic tombs according to old norms. Despite a general lack of preserved skeletons from the Danish Single Grave culture, a recent study has demonstrated close genetic resemblance to Central European Corded Ware groups (Egfjord et al. 2021).

One way of explaining the background of the dispersal of male-dominated early-Indo-European–speaking groups from the steppe to Europe during the early third millennium BC is to consider a certain 'warrior ideology', known from early Indo-European myths and poetry. Here dogs and/or wolfs are strongly associated with death, war, warriors, and in particular youthful war-bands. The term for such 'brotherhoods' of young warriors may have been the Indo-European noun **korios*. The concept is often referred to as *Männerbund/Jungmannschaft* or 'black youth', which describes a social system that includes war-bands of landless and unmarried adolescent young sons supervised and trained by a senior male. These bands were situated at the edge of ordinary society, where they adopted 'wolf-like' predatory behaviour and subsisted on raiding until they were ready to re-enter the tribe as men through cleansing rituals (*rites de passage*) when reaching adulthood. Such groups of young males were highly mobile and willing to take risks by undertaking pioneering migrations to acquire livestock, goods, territory, wives, and personal glory (Anthony 2007: 364–365, Petrosyan 2011, Kristiansen et al. 2017: 39–40 fig. 1, Brown & Anthony 2019: 101 and 110–114 with references).

Archaeological remains of what has been interpreted as a regional centre for the performance of warrior initiation rituals associated with the Indo-European **korios* institution has been unearthed at the Russian Late Bronze Age Srubnaya site Krasnosamarskoe at the middle Volga just east of Samara. The site dates to c. 1900–1700 BC and has revealed winter-season depositions of cut-up remains of at least 51 dogs and 7 wolves, with a significant predominance of male dogs (Brown & Anthony 2019).

As suggested by Kristiansen et al. (2017), the presence of such a warrior-training institution within early Indo-European societies could explain the presumed male-driven migrations from the steppe into Europe that helped create the Corded Ware culture through exogamic relations.

2 Violence, raids and warfare

As seen from the review above, it is to be expected that an institutionalized warrior ideology was an integrated part of the basic social structure of Corded Ware

(and Bell Beaker) societies. At first sight, this reconstruction of a violent and warring social structure confirms the scenario, mentioned in the introduction, of the peaceful Neolithic farming communities that were overrun by violent Indo-Europeans. However, before we jump to conclusions, we will have to reconsider the image of the peaceful Neolithic and first briefly discuss the concepts of war and warfare in the past.

Conflict, interpersonal violence and fighting seem to be integral elements of human behaviour. The result, in the form of injuries caused by violence, is found on human bones widely distributed across time and space. Single individuals showing lesions, healed or lethal, can tell us something about how violent society was within given periods and geographical areas, but they do not necessarily tell us if *war* existed or not. The question is: when did aggressions take place on a scale and under circumstances that allow us to define them as warfare? How should we define war, and how can we discern traces of warfare in the archaeological record?

2.1 The concepts of war and warfare

Wars have been the topic of epic poems and historical chronicles from antiquity to the present, describing great battles, fights and sieges ranging from the Late Bronze Age battles of Kadesh and Troy to the decisive battles of World War II. However, among the earliest works that theorize on war and military strategies are those of Chinese general Sun Tzu from around 500 BC (tr. Giles 2014), as well as those of Renaissance historian and political philosopher Niccolò Machiavelli from 1521 (tr. Franeworth 2001). But it is *Vom Kriege* 'On War', the oft-cited work of Prussian general and war theorist Carl von Clausewitz published in 1832–1834 (tr. Graham 2012) which has had the greatest impact on the modern development and conception of war in the West.

According to Clausewitz, war can be defined as follows: "War therefore is an act of violence intended to compel our opponent to fulfil our will" (Graham 2012: 41). Further, war can be regarded as politics carried out with other means, the political view being the object while war is the means (ibid.: 64). Thus, war has a purpose, a political gain. But which factors should we consider in order to define human aggression as war?

Even though most people will know what we are talking about when we mention the term 'war', it is not easy to define, and most scholars who deal with the concept of war have their own more or less diverging definitions (for an overview and general discussion, see among others Schjødt 2003). However, some el-

ements seem to recur in the perceptions of war, namely that it is a social or rather collective act, is violent by nature, is organised in some way and has a purpose. As the American anthropologist R. Brian Ferguson (1997: 337) puts it, "War is a relationship between groups". Hence, war can be separated from other forms of violence such as the killing of individuals, including homicide, executions, liquidations, interpersonal strife, fights, duels and family and intra-group violence.

An important element in the Hungarian peace researcher István Kende's definition of war is the emphasis on its continuity. War is not a single attack or battle: it has a certain duration, and societies will be in a state of war for shorter or longer periods. Kende has put forward three co-occurring qualifying criteria of war: active regular armed forces at least on one side, a certain degree of organization on both sides, and a certain continuity between the armed conflicts including a strategic–tactical and organizational coherence (Kende 1971: 6). The Dutch behavioural scientist Johan M.G. van der Dennen suggests a somewhat different view on the violent aspect of war, as he sees war as a very special category of macro-level violence:

> War is a species of the genus of violence; more specifically, it is collective, direct, manifest, personal, interpersonal, organized, institutionalized, instrumental, sanctioned, and sometimes ritualized and regulated, violence. (van der Dennen 1995: 69)

The violent aspect of war can be more or less emphasised in the different definitions. If we return to the works of Ferguson, he characterises war as:

> […] organized, purposeful group action, directed against another group that may or may not be organized for similar action, involving the actual or potential application of lethal force. (Ferguson 1984: 5)

The *potential* use of violence also has parallels in the ethnographic record showing that ritual warfare characterised by formal and arranged battles occur and that these *can* be fought with few casualties. Such battles can take the form of tournament-like face-to-face confrontations between groups that exchange blows or engage in club fights or spear-throwing and arrow shooting (Gat 2006: 122 and 124, Keeley 1996: 63–65, Ember & Ember 2011: 262–264).

Then, was war in one form or another present in early prehistory? Let us take a brief look at two analogies often applied when researchers try to describe the nature and origins of war, namely humankind's closest relatives the chimpanzees,

and the ethnographic record concerning mobile hunter-gatherers. Intentional, lethal, and gang-based attacks are common features among chimpanzees as part of inter-group aggressions probably carried out in order to expand their territory. The attackers are predominantly male chimpanzees, as are the victims; however, young infants are often killed during the attacks, probably because they are easy targets. In general, the attackers far outnumber their victims, showing that attacks take place when the risk of being killed is low (Mitani et al. 2010, Wilson et al. 2014, Southern et al. 2021).

Ethnographic studies indicate that these patterns are not unique to apes, but also occur among humans as warfare among some mobile human hunter-gatherer groups resembles the so-called 'chimpanzee model of war' in three essential aspects. The model proposes that,

1 chimpanzee groups compete over territory, food and females
2 there is a strong tendency for hostility against members of other groups and, by cooperating in killing rival groups members, males increase dominance and access to food for their own group in the long run
3 intergroup aggression primarily takes place when the killings can be carried out at low risk, i.e., when the attackers greatly outnumber their victims

However, elements such as revenge-seeking and parochial altruism, manifested in self-sacrificial or excessively risky behaviour, seem to differentiate human warfare from that of chimpanzees (Wrangham et al. 2006, Wrangham & Glowacki 2012).

As in the cases referred to above, ambushes and raids – understood as surprise attacks by small groups or larger raiding parties, and not battles – are the most common and lethal kind of warfare in many non-state or 'non-modern' societies (Keeley 1996: 65–67, Gat 2006: 114–132). However, raids can hardly fit into most contemporary conceptions of war, and it therefore seems reasonable to distinguish between two main categories of war: 'simple' (also referred to as 'primitive') and 'complex'. Simple warfare is often ascribed to small-scale hunter-gatherer and farming societies and is dominated by raiding and feuding, whereas complex warfare is related to societies with developed political hierarchies and includes battles fought by soldiers under orders from leaders (Wrangham & Glowacki 2012: 8). An intensification of the violence leads from small-scale raids to actual massacres, defined as larger surprise attacks with the purpose of annihilating an enemy community including men, women, and children. Massacres have been recorded in several ethnographic cases, even though they seem to occur infrequently (i.e., once a generation) in non-state societies (Keeley 1996: 67–69).

3 Simple warfare before and after the Corded Ware

If we are to identify traces of warfare in the archaeological record, we must of course critically analyse the available sources and try to differentiate between warfare and other forms of killing, such as interpersonal aggression/dispute, homicide, lynchings, executions or human sacrifices. A high percentage of human remains with traumas may indicate that the injured individuals were victims of warfare, but found individually, whether buried in graves or deposited in, e.g., bogs and lakes, they may equally well represent one of the practices outlined above. In order to differentiate between these two main categories – 'war-like' (inter-group armed violence) and 'judicial' (intra-group violence; cf. Chenal et al. 2015: 1324) – we need an archaeological context to support either of the interpretations.

3.1 Warfare and killings in the Neolithic

One example of a case that shows a violent ending but has not been interpreted as a result of warfare is the famous Tyrolean naturally-mummified man known as Ötzi, who was shot by an arrow and ended up in a glacier in the Italian Ötztal Alps (from which the name Ötzi was coined) around 3300 BC. One scenario among others is that Ötzi was chased and killed by a group of attackers (Fleckinger 2014). Another, but rather different example is the Early Neolithic find from Sigersdal Mose, northern Zealand, Denmark (c. 3400 BC). A lugged flask and the remains of two skeletons of young individuals (probably women) were found close together in a bog, one of the skeletons with a cord around its neck. The find is interpreted as a human sacrifice (Bennike & Ebbesen 1987). A similar example was found at Boelkilde, on the island of Als, southeastern Jutland, Denmark. Here, two males (c. 16 and 40 years old) dating to the Early Neolithic around 3400 BC were found in a bog, the older with a cord around his neck (Bennike, Ebbesen & Jørgensen 1986). These Early Neolithic individuals represent examples of a practice where single individuals were intentionally killed and deposited in bogs or lakes, probably for sacrificial reasons (for more Early Neolithic human bog finds, see Sjögren et al. 2017; see also Fischer et al. 2024 on the significant life-history of the maltreated and deposited Vittrup man of NW Jutland). This practice is geographically and chronologically widespread and is well illustrated by the renowned Pre-Roman Iron Age (c. 500–1 BC) bog bodies from sites like Tollund, Elling, and Grauballe (Jensen 2003: 176–187).

However, these categories do not necessarily need to be strictly separated, as illustrated by an ethnographical example from Borneo, where headhunting was practiced by agriculturalists who carried out raids on other villages in order to obtain human heads needed in a variety of ritual practices. Here, raids became the means to obtain cultic objects (the human heads), which were hung up (in archaeological terms 'hoarded' or 'deposited') in longhouses and subjected to intensive ritual attention (Rothstein 2021). The chopped-off heads are often indications of raids even though they could be acquired by other means. Warfare and ritual practices are thus closely intertwined as raids became a necessity for the cult – perhaps the individuals that ended their days in the bogs at Sigersdal and Boelkilde, too, were captured in raids whose sole purpose was to acquire subjects suitable for sacrificial offerings?

Another fusion of warfare and offering is of course the widespread practice of sacrificing (some of) the spoils of war and/or war captives as thank-offerings for success on the battlefield. This practice is well-attested archaeologically, among other places, in the South Scandinavian Iron Age (e.g., Randsborg 1995, Jørgensen, Storgaard & Thomsen 2003, Holst et al. 2018).

One of the most spectacular victims of interpersonal violence from the Danish Neolithic is the significant bog find of the skeletal remains of a man recovered at Porsmose on southern Zealand (Figure 1). A bone arrowhead has penetrated the nose section, and another has gone through his breastbone. The skeleton has been radiocarbon-dated to the mid-fourth millennium BC (Becker 1952, Bennike & Ebbesen 1987: 101). The remains of a similar violent scenario have been recovered during excavation in the Salpetermosen bog in northern Zealand (Figure 2). In this case, a 15-cm long bone arrowhead was found together with human remains of a male aged 25–30 (c. 3600–3500 BC) who had suffered an unhealed blow to the head in addition to an older, healed skull injury. The arrowhead was not logged into any of the bones, but the find context makes it probable that the man was hit by the arrowhead, as no other artefacts were found in relation to the deceased (Jørgensen & Hagedorn 2015). It is not possible to say with certainty whether the men from Porsmose and Salpetermosen were killed in warfare or executed, but it is reasonable to see these cases as the result of lethal attacks that included fighting. The way the arrowhead had penetrated the Porsmose man's nose section clearly indicates that he was shot from above, perhaps the victim of an ambush (Becker 1952: 30).

Even if these Early Neolithic examples cannot with certainty be related to warfare, they definitely show that South Scandinavian pre-Corded Ware Neolithic societies were violent, which is also indicated by the presence of weaponry such

FIGURE 1. Cranium from Porsmose, southern Zealand, Denmark, with the bone arrowhead still in place. Photo: Roberto Fortuna and Kira Ursem, National Museum of Denmark.

FIGURE 2. Cranium with unhealed fracture from Salpetermosen, northern Zealand, Denmark. Photo: Museum Nordsjælland.

as flint halberds, stone battle-axes, and mace heads (Ebbesen 1988, 1994b and 1998). Furthermore, specialized war arrowheads seem to be part of the repertoire of the 'sub-Neolithic' Pitted Ware culture, which overlaps with the early Single Grave culture in the early third millennium BC (Iversen 2016). A study of skull traumas from the South Scandinavian Neolithic in general (c. 4000–1700 BC, i.e., including the Middle Neolithic Corded Ware and Late Neolithic periods) shows injuries in 378 individuals, mainly sampled from megalithic tombs. These injuries indicate sex-biased engagements in conflicts, as male samples show unhealed lesions mainly on the left side, suggesting face to face fighting (in the case of two right-handed opponents), whereas the female samples show lesions mainly on the right side of the skull. While significantly more males are marked by healed injuries, the two sexes seem to be equally represented as regards perimortem/lethal injuries (Fibiger et al. 2013).

3.2 Violence in the Linear Pottery and Michelsberg cultures

Evidence of intentional killing is certainly also present in the archaeological record from Neolithic Europe, as shown by arrowheads embedded in human bones, skulls with multiple traumas and traces of downright massacres (e.g., Thorpe 2006, Schulting & Fibiger 2012, Heath 2017). Before the Corded Ware, we see some spectacular examples from the Central European Neolithic – in particular, the Linear Pottery culture (c. 5500–4900 BC) has provided quite a number of significant cases. Many of these have been mentioned in the literature several times, and I will refer to them only briefly here (see also Golitko & Keeley 2007).

One of the most renowned sites is the mass grave at Talheim in southwestern Germany, c. 5000 BC. The grave pit revealed the remains of 34 individuals – men, women and children representing three generations – who show injuries and defects caused by blunt and semi-sharp weapons and arrowheads. The demographic profile of the interred individuals indicates a massacre of a whole community (Wahl & Trautmann 2012). A comparable case from the Linear Pottery culture is Schöneck–Kilianstädten in central Germany. Here at least 26 individuals were killed by blunt force, including cranial trauma and injuries caused by arrows. The general picture indicates that the victims were subjected to torture and mutilation. Again, men, women and children are present, but there is a significant absence of younger women. It has been suggested that this pattern indicates that the younger women were taken as captives (Meyer et al. 2015). A similar demographic dis-

tribution is shown at the Austrian enclosed settlement Asparn/Schletz, dated c. 5000 BC. The site has revealed the skeletal remains of 67 individuals, found at the base of a ditch, with crania showing multiple traumas. Men, women and children are all represented at this site as well, but with an underrepresentation of females among younger individuals (20–40 years). As with the Schöneck–Kilianstädten site, the lack of younger women has been interpreted as the result of abduction (Teschler-Nicola 2012). The younger women may then in fact have been the main reason for some of these attacks, in which case we may be dealing with a situation of (forced) patrilocal exogamic relations (see also Bentley et al. 2012) comparable to that outlined for the early Indo-European communities above. Of course, other kinds of family structures may have existed within the widespread Linear Pottery culture (cf. Hrnčíř, Vondrovský & Květina 2020).

An even more extensive, but rather different, example is the presumed ritual gathering place of Herxheim in southwest Germany, dated c. 5000 BC, which shows traces of cannibalism, skull manipulations and skulls with healed injuries (Boulestin et al. 2009, Orschiedt & Haidle 2006). Yet another category is the presumed systematic execution of a selected group of nine non-local individuals, almost exclusively adult males, found in a Linear Pottery culture mass grave at Halberstadt in central Germany (Meyer et al. 2018). In addition, there were also enclosed sites with V-shaped ditches and palisades, which some scholars see as fortifications and thereby indirect evidence of warfare (e.g., Heath 2017: 17–35, Lull et al. 2015, Keeley & Caben 1989).

The somewhat later central European Michelsberg culture (c. 4400–3500 BC) has also revealed direct traces of interpersonal violence, such as those found in a pit at Bergheim in Alsace, France. The pit contained seven individuals and the fragmented skull of an eighth person, deposited on top of a number of amputated human upper limbs. One of the individuals shows numerous traces of violence including blows to the head. The find is interpreted as the result of armed violence and the amputated arms as trophies (Chenal et al. 2015). In addition to Bergheim, a series of other examples showing violence have been recorded from pits (e.g., Heidelberg–Handschuhsheim) and contemporary enclosure ditches holding large numbers of human remains (Wahl & Höhn 1988, Chenal et al. 2015: 1329 with references; see also Jeunesse 2012).

Examples of intergroup violence are also known from the Globular Amphora culture (c. 3300–2700 BC), as well as from other areas of Neolithic/Chalcolithic Europe, e.g., at Koszyce in southern Poland from c. 2800 BC (Schroeder et al. 2019), Potočani in Croatia from c. 4200 BC (Novak et al. 2021) and Els Trocs in the Spanish Pyrenees from c. 5300 BC (Alt et al. 2020).

3.3 Violence in Corded Ware societies

The grave mentioned above from Koszyce belongs to the Globular Amphora culture; it dates to c. 2880–2776 BC and is therefore contemporary with the early Corded Ware. Genetically, the interred individuals are clearly different from the contemporary and neighbouring Corded Ware groups, as they do not have steppe-related ancestry. Whether the expansion of Corded Ware groups was the reason for the massacre is not easy to say, but it has been suggested as a reasonable scenario for the event (Schroeder et al. 2019). Together with the multiple Corded Ware burials from Eulau, Koszyce suggests that the emergence and spread of Corded Ware communities caused violent intergroup conflicts.

Direct traces of violence have been recorded on a series of (usually healed) skulls from the German Corded Ware (including the Single Grave culture). These show a higher frequency of presumed combat injuries on male skulls, compared to their female counterparts, indicating that violence is closely related to males and, from the analysed skulls, often non-lethal (Lidke 2012). Furthermore, there appears to be a correlation between skull traumas, males and the presence of stone battle-axes (but also other stone items such as mace heads, etc.) in Central German Corded Ware graves. Most of the traumas found on male skulls are located on the left front and top indicating that face-to-face fights between two right-handed opponents caused the injuries. Thus, it seems very plausible that the widely distributed Corded Ware stone battle-axes were actually used in close combat (Wicke et al. 2012, Schwarz 2015; see also Heath 2017: 37–51).

As the skeletal material from the Danish Single Grave culture (Corded Ware) is very rarely preserved, it is not possible to observe whether a similar correspondence between skull traumas and battle-axes exists. However, with the emergence of Single Grave societies on the Jutland Peninsula, we see a dramatic increase of more than 900% in the number of stone battle-axes. This trend increases further in the Early Late Neolithic (c. 2350–1950 BC) when flint daggers replaced stone battle-axes as the main weapon and warrior symbol (Iversen 2015: 89–90 and 135–136, 2017: 368–369 with references). Thus, weapons were certainly present in the Danish Single Grave culture and, based on the data from the Central German Corded Ware, they were also used in combat. Direct evidence of a violent encounter from the Danish Single Grave culture has been recorded in the stone cist burial at Gjerrild, eastern Jutland, which contained the remains of at least ten individuals buried over a period of c. 300 years, from 2600/2500 to 2200 BC. A tanged flint arrowhead had penetrated the breastbone of a male aged 20–30, and two similar arrowheads were found in the cist, one by the right hip of a male aged

FIGURE 3. Early Single Grave culture grave goods: cord-ornamented beaker, two perforated amber discs and a stone battle-axe from a burial mound at Møbjerg, Sønder Omme parish, southeastern Jutland. Photo: Roberto Fortuna and Kira Ursem, National Museum of Denmark.

40–50 who had a hole in the skull from trepanation. It is noteworthy that the two individuals associated with arrowheads and traumas have matching radiocarbon dates and could theoretically be victims of the same or a series of related encounters between Single Grave culture groups (Egfjord et al. 2021).

3.4 Displaying the warrior – the Danish case

I have already mentioned the focus on battle axes and the display of warriors seen, for example, in the Jutland single graves (cf. Hübner 2005: 632–633 fig. 454, Vandkilde 2006, Kristiansen 2009). The typical (male) grave goods in the early phase (c. 2850–2600 BC) consist of a stone battle-axe in addition to, e.g., a flint axe, arrowheads, blades, a pair of amber discs, and a beaker (Figure 3). However, if we

FIGURE 4. Early Neolithic grave goods from a burial mound at Tovstrup, Hover parish, western Jutland: lugged flask, collared flask, funnel beaker and stone mace head. Photo: Roberto Fortuna and Kira Ursem, National Museum of Denmark.

look at the typical grave goods found in the Early Neolithic (c. 4000–3300 BC) non-megalithic earth graves and dolmens, we find the same range of elements. Though far from frequent, weaponry is present in the form of stone battle-axes, mace heads, and flint halberds alongside flint axes, various flake tools, amber ornaments, and pottery (Ebbesen 1994a: 45, 2011: 283–299; Figure 4). This basic picture is repeated in the late Middle Neolithic northwest Jutland stone-packing graves (c. 3100–2800 BC), which presumably represent wagon burials holding flint axes, pottery, amber beads, and occasionally stone battle-axes (Jørgensen 1977, Fabricius & Becker 1996: 136–195, Johannsen & Laursen 2010; Figure 5). Even though the representation of the warrior figure/persona appears far more integrated and dominant in the early Single Grave period compared to the previous Neolithic phases, we can faintly see a similar conceptualization of the warrior in the Early Neolithic graves.

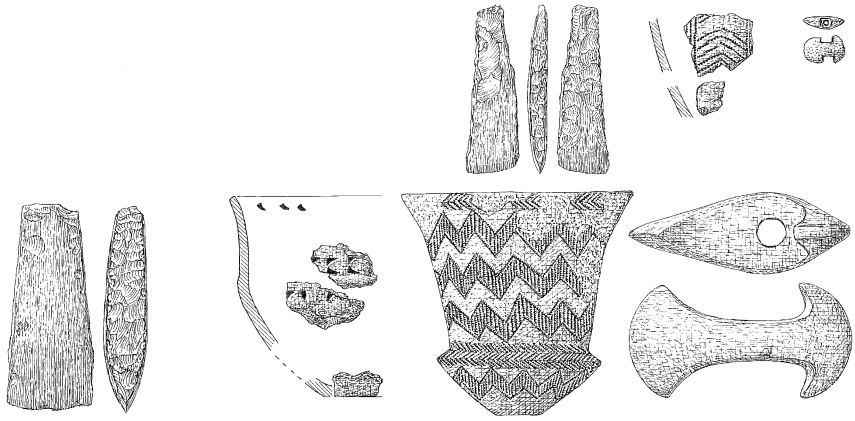

FIGURE 5. Grave goods from stone-packing grave, feature XIII at Vroue Hede II, central Jutland, early third millennium BC: Funnel Beaker pottery, thick-butted flint axes, double-axe–shaped amber bead and double-edged stone battle-axe. After E. Jørgensen (1993: 113).

4 Concluding remarks

In this article, I have tried to nuance the picture of the peaceful Neolithic farmers that were subdued by violent incoming Indo-Europeans. I have done this not by trying to scale down the potential violent nature of early Indo-European societies, but rather by stressing some violent aspects of the pre–Corded Ware Neolithic. I do not find it convincing to argue for a significant increase in violence after the appearance of the Corded Ware. Violence is, and has probably always been, a latent feature of human societies that can increase or break out in different regions in certain socially unstable situations.

On the other hand, the scale of violence and its degree of organization has generally increased through time in line with technological advancements, and while interpersonal and intergroup violence certainly occurred in Neolithic and Chalcolithic societies, it most likely took the shape of 'simple warfare' (i.e., raids and massacres), or sometimes perhaps even as mock or formalized/ritualized non-lethal battles. The scale of warfare seems to be the same throughout the Neolithic, even though we have more sources available (historical linguistics) when it comes to describing the later period concerning early Indo-European societies.

I am generally in favour of the hypothesis that early Indo-European speakers had social structures resembling those described as the **korḭos* institution, *Männerbund/Jungmannschaft,* 'black youth' or the like. The presence of such social

organizations provides a reasonable explanation for the relatively rapid dispersal of steppe ancestry across much of Europe during the early third millennium BC. However, in this vivid reconstruction of the violent male-driven Indo-European expansion (which shares many similarities with the appealing story commonly told of Scandinavian Viking raiders in the 8th–11th centuries AD), we must not draw a simplified and idyllic picture of the preceding Neolithic societies. Many of the material, and probably also social-organizational, features ascribed to the Yamnaya and Corded Ware cultures were already widespread in Europe before the steppe migrations (cf. Heyd 2017, Iversen 2019). Perhaps Neolithic societies were even patrilineal, patrilocal and hierarchical long before the steppe influences arrived, as suggested by some genetic studies (e.g., Sánchez-Quinto et al. 2019, Cassidy et al. 2020, Dulias et al. 2022, Fowler et al. 2022).

Pre–Corded Ware Neolithic societies seem to be quite familiar with intergroup violence, raids, massacres and what I have referred to as 'simple warfare', and fully capable of carrying them out. This is notably the case with the Linear Pottery culture, where the cranial fractures from many sites seem to be inflicted by stone axes and shoe-last adzes belonging to these early farming communities, indicating that the attackers came from other Linear Pottery culture communities (Golitko & Keeley 2007: 339, Wahl & Trautmann 2012: 84). But violence must not be considered a feature characteristic only of the Linear Pottery culture – it also applies to later Neolithic/Chalcolithic groups targeting, e.g., Corded Ware communities, as clearly illustrated by the Eulau-scenario. Furthermore, even though the display of the warrior figure/persona seems to intensify with the Corded Ware, it was certainly there before, as illustrated by the finds from Early Neolithic burials.

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PART III
MOBILITY, GENDER, AND SOCIAL STRUCTURE

An update on the Corded Ware culture

Formation and spread, social aspects, human–canid relations, and tooth and shell status items

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This paper provides an update on general social aspects of migrations from the Ukrainian steppe in the 3rd millennium BCE from archaeology, DNA, and linguistics. It also provides a quantification of the prestige value of some tooth and shell status items in the Czech Corded Ware culture. Furthermore, it raises the issue of currently unconvincing archaeological evidence that wolves/dogs were linked with young male warrior bands in the formation of the Corded Ware culture, as suggested by Anthony (2022) and Kristiansen et al. (2017), showing that dogtooth (and shell) ornaments were in fact overwhelmingly associated with females in the Corded Ware culture. Although the paper does not give an exhaustive overview of all the available data, it attempts to inspire more detailed archaeolinguistic and bioarchaeological studies into human–canid gender and age relationships in early Indo-European societies.

As this paper covers a wide range of topics relating to 3rd-millennium BCE steppe migrations in Europe, it is divided into two parts: *Part I* gives an update on the social aspects of the formation and spread of the Corded Ware culture from ancient DNA and archaeology, and some notes on how this may inform on Indo-European phylogenetic branching. *Part II* provides a critical archaeological assessment of the role of dogs/wolves in connection with these migrations through dog burials and dogtooth ornaments, especially in relation to a widespread hypothesis that young male warriors migrating from the steppe associated themselves with dogs or wolves.

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Part I

An update on the social aspects of early steppe migrations in Europe and their relation to some Indo-European phylogenetic problems

1 The spread of the Corded Ware culture

In recent years, ancient genomic studies have shown that the genetic landscape in most of Europe changed drastically from being primarily Anatolian Farmer–derived in the early Neolithic to being Pontic steppe/forest-steppe–derived in the 3rd millennium BCE (Allentoft et al. 2015, Haak et al. 2015, Malmström et al. 2019, Olalde et al. 2018 and 2019, Papac et al. 2021). That the migration underlying this change played a crucial role in the formation of the Corded Ware culture (CWC) had already been suggested previously by linguists and some archaeologists (relatively recently by Kristiansen et al. 2017, Anthony 2017, Chang et al. 2015, Anthony 2007, Mallory 1989), but ancient genomics continues to provide more evidence supporting a connection between these prehistoric steppe migrations and the spread of Indo-European languages. Most recent is the discovery of a hitherto genetically undetected subsequent Late Bronze Age spread of ancestry from Continental Europe to The British Isles and Iberia, supporting linguistic hypotheses of a Proto-Celtic homeland in Central Europe, consistent with the spread of the Urnfield phenomenon and the early Hallstatt culture (Patterson et al. 2022, Olalde et al. 2019). The details and social dynamics of how the steppe migrations happened, their more precise origins, and whether there were several waves of people from the steppe during the 3rd millennium BCE is the next part of the puzzle currently under scrutiny (Heyd 2021).

How these questions may affect ideas of the internal structure of the Indo-European language tree and its inter-branch contacts will probably become clearer in the coming years, but genetics, especially Y-haplogroup patterns, offer support for an internal 'super-branch' connecting the Indo-Iranian (R1a-Z93) and Balto-Slavic (R1a-Z282/Z283) branches in their ancestral branch R1a-Z645 in the eastern CWC (Narasimhan et al. 2019, Nordqvist and Heyd 2020).

R1a-Z93–rich groups seem to migrate back east towards the Ural Mountains at a relatively early date (c. 2900 BCE), whence they form the Russian Fatyanovo (c. 2900–2200 BCE), Balanovo (2500–2200 BCE), and Abashevo (2200–1900 BCE) cul-

tures[2], and subsequently the Sintashta (2100–1700 BCE), Andronovo (1900–1200 BCE), and Srubnaya (1900–1100 BCE) cultures (Nordqvist and Heyd 2020, Anthony et al. 2016: 12-19), through which Indo-Iranian languages most likely spread throughout Central Asia and into South Asia (Narasimhan et al. 2019). R1a-Z645 also spread into the East Baltic (possibly in its derived R1a-Z282 form), Southwestern Finland, and eastern Sweden (likely via Finland, Holmqvist et al. 2018) during the 3rd millennium BCE (Mittnik et al. 2018, Malmström et al. 2019, Allentoft et al. 2024a and 2024b). Denmark and southern Sweden feature both R1a-Z645 and R1b-L151 (and its descendants R1b-P312 and R1b-U106) during the 3rd millennium BCE, the latter possibly from a second Bell Beaker culture incursion (Allentoft et al. 2024a and 2024b, Malmström et al. 2019, Mittnik et al. 2018). For a graphical overview of steppe-derived Y-haplogroups R1a and R1b, see Figure 1.

A Core Indo-European term for 'copper' (or perhaps generically 'metal') is preserved in Gothic *aiz* < Proto-Germanic **ajiz-* < Core-IE **h₂áies-* (Thorsø 2024, Olander 2024), but no metallurgy and almost no metal has been found in Scandinavia or Finland, and very little in Northern Europe in general, during the CWC period.[3] Metal then reappears in Southern Scandinavia in the subsequent Bell Beaker/Late Neolithic period (Iversen 2015: 108–109, Nordqvist et al. 2012: 8, Lutz et al. 1998: 46–50). The conditions for preserving such a word in Scandinavian CWC communities, assuming they spoke an Indo-European dialect, are therefore quite poor.

2 The formation of the Abashevo culture west of the Urals has recently, based on similarities in metals, burial rites, and ceramics, been suggested to be a product of Bell Beaker and Early Bronze Age culture groups in Central Europe and the Carpathian–Danube region migrating east (Mimokhod 2022). Whether this can be supported genetically remains to be tested. The typical Y-haplogroup R1b-P312 in Bell Beaker culture individuals (e.g. Olalde et al. 2018, 2019), is (so far) quite scarce or even missing in Srubnaya, Sintashta (two potential candidate genomes of R1b-M269, ancestral to R1b-P312, are known in this area, one from Sintashta, I0980 at Kammenyi Ambar 5, and one from the contemporary Potapovka culture, I7670 at Grachevka), and the Andronovo complex (Narasimhan et al. 2019). If Abashevo has some relation to Bell Beaker groups, their paternal lineages seem to have been outcompeted in Eastern Europe and Central Asia, where R1a-Z93 became dominant after being introduced in the Fatyanovo–Balanovo culture.

3 Only three small copper finds with secure context are known in Scandinavia, belonging to the later Battle Axe period (after 2600 BCE) in Sweden, and interpreted as Bell Beaker culture imports (Iversen 2015: 108). A copper disc in a reused long barrow in Rude, eastern Jutland, is seen by some as of Early Neolithic type, but also has parallels in the Bohemian or Swiss CWC (see discussion and further references in Madsen 2020: 35-36, Allentoft et al. 2024a: Supplementary Note 6, 184–185).

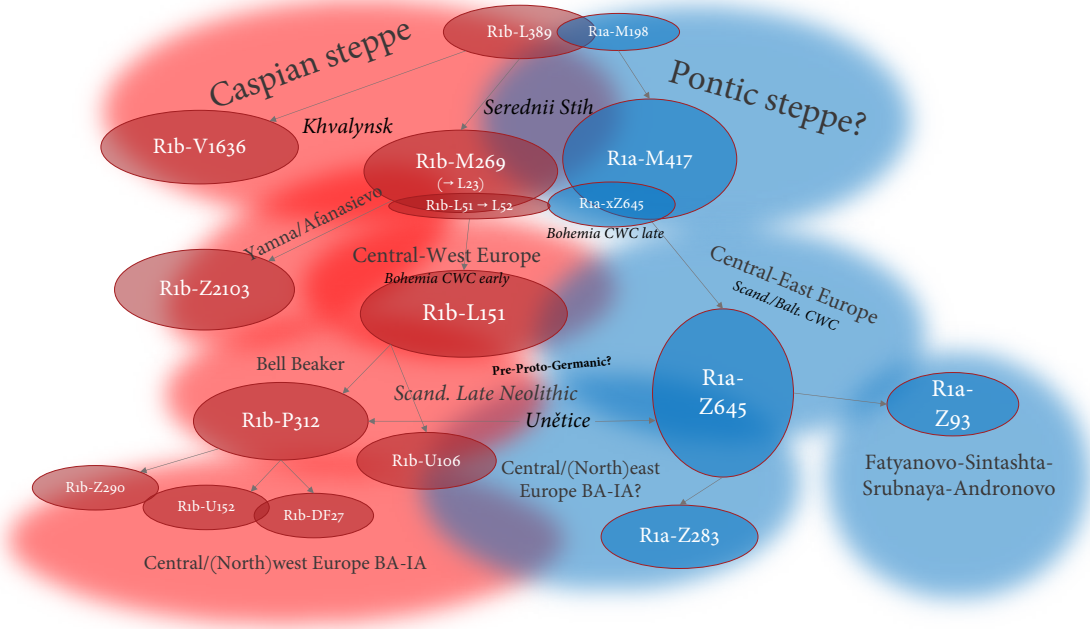


FIGURE 1. Simplified and heavily generalized tree of the current overview of steppe-derived Y-haplogroup branches of R1a and R1b. Some intermediate nodes have been left out for simplicity. Illustration: Mikkel Nørtoft.

This, along with the consecutive spreads of ancestry and Y-haplogroup shifts into Scandinavia may suggest that the arrival of the linguistic ancestor(s) of Germanic was more complex than just the arrival of CWC groups (Single Grave/Battle Axe variants). The early date and close interval (c. 400–500 years) of these incursions into Scandinavia would make it extremely difficult to untangle which of them gave rise to ancestral pre-proto-Germanic. However, the mix of paternal lineages in Scandinavia could perhaps reconcile the debate on the phylogenetic position of the Germanic branch in the Indo-European family tree, having isoglosses shared with both the Balto-Slavic and Italo-Celtic branches (although some of these may be due to later convergence, see discussions by Pronk 2022 and Hansen & Kroonen 2022). Thus, Germanic may have formed as a mixture of similar Indo-European dialects during the 3rd millennium BCE, one in close contact with a gene pool of pre- or para-Proto-Balto-Slavic speakers (R1a-Z645-branch), and one (later) in close contact with pre-Italo-Celtic speakers (in the West/Central European Bell Beaker culture, R1b-P151-branch). The latter may have spread

Core-IE *$*h_2áies$*- 'copper' into Scandinavia, whether as a singular loanword or along with a second Indo-European incursion into Scandinavia to form (part of) ancestral Pre-Proto-Germanic.

Traditionally, the migrations from the steppe, and early Indo-European society itself, have been associated with male-dominated society (Gimbutas 1993: 218, Mallory 1989: 123), a male warrior elite (e.g., Vandkilde 2009: 68–70), patrilocal marriage practices,[4] and patrilineal inheritance (Olsen 2019, Sjögren et al. 2020, Mittnik et al. 2019). Furthermore, several ancient genomic studies have shown that 3rd-millennium BCE steppe-derived migrations were often male-driven (Papac et al. 2021, Furtwängler et al. 2020, Olalde et al. 2018 and 2019, Goldberg et al. 2017), and high-status graves of some non-local female individuals in Bronze-Age Germany have been linked to female exogamy (Mittnik et al. 2019).

Comparative anthropological evidence of stateless societies across the globe suggests that marriage transfer as some form of payment is more or less ubiquitous, especially bridewealth (also, especially formerly, termed 'bride-price'), but sometimes in combination with dowry (Testart 2013). Simply put, bridewealth is when the groom (or his family) pays to the bride (or her family), while dowry is when the bride's family pays or gifts to the bride (e.g., in textile form, trousseau[5]) or to the married couple; in Hindu law, the dowry is owned by the bride (*strī-dhana* 'woman's wealth'[6]), whereas in (Roman-influenced) Europe, it was managed by the husband (Testart 2013: 27). Both can exist in the same society, often on a spectrum of social class where either the dowry (typically upper class, urban) or bridewealth (typically lower class, rural) may be the larger payment, depending on which party has more status (Testart 2013). Bridewealth is known in ancient Europe with Germanic tribes (Visigoths, Lombards, Franks), while dowry is historically most prevalent in ancient Rome and Greece (e.g., in 6th-century BCE Athens as 10% of the bride's father's wealth). Due to the Germanic migrations,

4 Olsen (2019: 154) reconstructs *$*h_2u̯edh_{1/2}$*- with the meaning 'lead', in Avestan *vāδaiieiti* 'leads', Old Irish *fedid* 'leads, carries, brings', Gothic *ga-widan* 'connect', Old Church Slavonic *vedǫ* 'lead'; but also with the meaning 'marry' in Lithuanian *vedù* 'lead; marry (from the man's side)', English *wed, wedding*, and the nominal derivative Vedic *vadhū*- 'bride'. For kinship terminology, mostly reconstructed for the husband's side, indicating patrilocal marriage, see also Olsen (2020).

5 The trousseau is often the part of the dowry that the bride gets to keep when getting married, and is on open display as a public demonstration of her family's wealth and prestige (Harrell and Dicky 1985: 106, 114).

6 Attested since the Manusmriti (c. 2nd–3rd century CE) according to Monier-Williams (1956–1992: 1261).

bridewealth increased in the Graeco-Roman world at the expense of dowry, until dowry was reinstated in the late Middle Ages and spread with Christianity as a practice to most of Europe until modern times (Anderson 2007: 152–158, Testart 2013).

Within Indo-European linguistics, some evidence for an Indo-European bridewealth custom has been found, but there are also indications of a dowry custom being present quite early. Particularly relevant is the word **h₁u̯ed-mōn* underlying Proto-Germanic **wetman* 'dowry'[7] as well as (in thematicized form, **h₁u̯ed-(m)n-o-*) Homeric Greek ἔεδνα 'dowry, bridewealth' and Proto-Slavic **vě̀no* (Old Russian *věno* 'dowry', dialectal Serbo-Croatian *vijèno* 'dowry'); but the PIE reconstruction has some formal problems[8] (Sjögren et al. 2020, Kroonen 2013: 583, Beekes 2010: 374, Leaf 1900: *Iliad* 9.146 commentary, Holthausen 1974: 401). Another etymon relating to marriage transactions is Greek ὄαρ 'wife', if from **u̯ohar* from earlier **u̯osar*, ultimately going back to an original consonant stem, PIE **u̯os-r̥* (genitive **u̯és-n̥-s* ~ **us-n-ós*) 'purchase'.[9] We might also add Celtic **to-kʷriu̯o-* (Middle Irish *tochra*) and Lithuanian (genitive) *krieno* 'bridewealth' < **krienas*, both from Core IE **kʷrih₂-o-* 'bridewealth' ultimately going back to a PIE root **kʷreu̯h₂-* 'buy' (Olsen 2019: 154–155 and Olsen 2020: 144 fn. 381, after Klingenschmitt 2008: 409–410).[10] Iranian has a word *zāmātar* 'son-in-law' that could be derived from **zam-* 'pay' (cf. Avestan *zəmanā* 'payment, wages' and Greek

7 Cf. Old English *wituma, wetma* 'dowry', Old Saxon *withum-līk* 'belonging to the dowry', Old High German *widomo, widimo* 'dowry, endowment' (Holthausen 1974: 401, Kroonen 2013: 467).

8 Kroonen (2013: 583) proposes a way to connect this root **h₁u̯ed-* to the root **h₁u̯edʰ-* 'lead, marry'. However, Olsen (2020: 160–161) instead reconstructs **h₂/₃u̯edh₁-* for the latter, and concludes that, although the semantic connection is attractive, the quality of the laryngeals makes it difficult to connect **h₂/₃u̯edh₁-* 'lead, marry' and **h₁u̯ed⁽ʰ⁾(h₁)-* 'bride-price, dowry'.

9 For this ablaut, cf. Hittite verb *wāši* 'buys' beside the denominative *ušniya-* 'put up for sale'; see Olsen (2020: 142–144) for details.

10 However, it is sometimes unclear whether these words mean 'dowry' or 'bridewealth'. For example, Derksen (2015: 258) describes *krienas* as "bride-price, tribute which a peasant girl that is getting married must pay to her master", a definition that fits dowry rather than bridewealth. However, Testart (2013: 39–40) shows that the Grand Duchy of Lithuania clearly meant bridewealth when using *krieno* (genitive), and that the bridewealth also existed for the Old Prussians (the *Prutheni*) in the late 1200s. The related word in Middle Irish *tochra* indeed fits 'bridewealth' in its description: "payment made by bridegroom to bride or bride's father" (eDIL, s.v. *tochra*). The same ambiguity is found in Homeric Greek *ἔεδνα* which, even within the Odyssey, is used for 'dowry' (*Od.* 1.277), but also 'bridewealth' (*Od.* 9.146) (Leaf 1900: *Iliad* 9.146 commentary)

γαμέω 'marry'), perhaps from a PIE root **ĝem(H)-* that may have meant 'marry', also with several derivatives meaning 'son-in-law' or 'brother-in-law' (for more detail, see Olsen 2020: 125–128).

However, it is difficult to find one clear etymon for 'bridewealth' or 'dowry' preserved in the majority of the daughter branches, so their Proto- (or Core-) Indo-European age may be questioned, or their fragmentary attestation could be the product of continuously changing customs. According to Anderson (2007: 158), bridewealth is more common in polygamous societies, while dowry is more common in monogamous societies. Mallory and Adams (1997: 123) suggest that, while a possibly shared word for 'concubine', **parikah*$_2$, has been attested in Celtic and Iranian,[11] and illegitimate children were not unheard of (and could still be heirs under Irish law), early Indo-European society was probably not formally polygamous. If early Indo-European societies were not (formally) polygamous, but rather (mostly) monogamous, we might expect dowry to play a role as well. While Testart shows that dowry was most prominent in state societies, the Greek customs being particularly influential, he also shows that both *kušata* 'bridewealth' and *iwara* 'dowry' were present in Hittite customs, mostly in the upper class (Testart 2013: 39). While Germanic tribes are known for their bridewealth, it is interesting to note that most of the Germanic attestations for **wetman-* seem to suggest a meaning 'dowry', rather than 'bridewealth'. This may, however, simply be because these words were documented after the Christianization of Northern Europe where dowry customs became dominant.

Turning to possible male clans, previous studies have shown a strong bottleneck in paternal lineages (i.e., Y-chromosome haplogroups) in both the Yamna[12] culture (R1b-Z2103), the Corded Ware culture (R1a-Z645 and derivatives), and the subsequent Bell Beaker culture (R1b-L151 and its descendant branch R1b-P312). The R1b-lineages so far both seem to derive from R1b-M269 on the steppe or forest-steppe, and R1a-Z645 derives from R1a-M417[13]. The exact presence of

11 Middle Irish *airech* 'concubine whose services were not for free' (unlike that of a *carthach*), and Avestan *pairikā* 'a group of beautiful demonic courtesans with power over the plantworld, livestock, earth, water, and fire working for the evil Ahriman to prevent rain' (Mallory and Adams 1997: 123).

12 In line with recent developments in archaeology, I use Ukrainian-based names, rather than the formerly ubiquitous Russian-based ones, to refer to places and cultures associated with Ukraine; thus *Yamna* rather than *Yamnaya*, *Tripyllia* rather than *Tripolye*, *Usatove* rather than *Usatovo*, etc.

13 See homeland.ku.dk (Nørtoft & Olander 2018) on Y-haplogroups; for visual overviews with references, see ancientgenomes.com (Nørtoft & Schroeder 2020).

R1a-M417 on the Eneolithic steppe is still (at the time of writing) a bit of a mystery.[14] Recently, Anthony et al. (2022: 40) reported that most of their, as yet unpublished, male genomes from the Eneolithic Serednii Stih culture (5th millennium BCE) in Ukraine belonged to haplogroups R1a and I, though without specifying which subbranch of R1a. At contemporary Khvalynsk in the Volga region, where instead R1b dominates, only one case of R1a (M459, too basal on the R1a tree to reveal specific steppe lineages) was found. The bottleneck in Y-haplogroups has been suggested to be an indication of blood feud–like competition between males of different patrilineal clans eradicating some male lineages from subsequent gene pools (Zeng et al. 2018). An institutionalized form of such blood-feuding is still known from the Albanian law of Kanun, where dishonour from another clan can be resolved by killing a male member of that clan, and has parallels in Corsica, Northern Caucasus, and Northwestern India (Cara et al. 2015: 181).

Such a scenario for early steppe-derived societies could perhaps explain the bottleneck of Y-haplogroups in these groups (Yamna, Corded Ware, and Bell Beaker) and the mass migrations from the steppe being divided into separate paternal lineages (especially Corded Ware R1a-Z645 being very different from Yamna R1b-Z2103 and Bell Beaker R1b-P312).

However, new CWC genomes (Papac et al. 2021) with some of the earliest datings so far (c. 2900 cal BCE) have shown that early Corded Ware–associated males in Bohemia had a range of different R1a and R1b Y-haplogroups, one instance of haplogroup Q, and one (typically Yamna) haplogroup R1b-Z2103. Haplogroup Q is usually associated with West-Siberian hunter-gatherers, but is also found in the Yamna-neighbouring Steppe Maykop culture north of the Caucasus (Wang et al. 2019, Narasimhan et al. 2019) and in a few genomes from Khvalynsk (Anthony et al. 2022). R1a then becomes dominant in the Bohemian CWC only from 2600 BCE, but it is not the R1a-Z645 subbranch that dominates here, unlike elsewhere in

14 Previously reported in individual I6561, who was first dated to c. 4000 BCE by Mathieson et al. (2018) but since redated by C14 to c. 2134–1950 cal BCE. The problematic date was seemingly first discussed publicly in a blog post (Quiles 2019); the new dates were corroborated in a Twitter post by Iain Mathieson on 10 June 2022 (https://twitter.com/mathiesoniain/status/1535319673662758913) and later updated in David Reich's repository of published ancient genomes, AADR, available at https://reich.hms.harvard.edu). The new date of this genome is more reasonable due to its (also later specified) Y-haplogroup R1a-Z93, derived from R1a-Z645, and otherwise only known from the later 3rd millennium BCE, as well as the mutation for lactase persistence (reported already in Mathieson et al. 2018), which only slowly increases in frequency from the Bronze Age onwards (Wilkin 2022).

the CWC. This shows that larger studies focussing on thorough time-transects in one region can completely change the way we understand these migrations, and that the Y-haplogroup bottleneck we thought we were seeing in early steppe-derived individuals was not necessarily a steppe migration phenomenon. It rather happened in the transition from early to late Corded Ware, and could be due to selection, social structure, or an influx of non-local males carrying R1a-M417 (Papac et al. 2021). Interestingly, in the Bell Beaker period of Bohemia, R1b-P312 (a sub-branch of the early Bohemian CWC R1b-L151) becomes the dominant lineage. It continues well into the Bronze Age (primarily the Únětice culture) along with other lineages, including R1a-Z645, best known from non-Bohemian CWC individuals, as well as typical hunter-gatherer Y-haplogroups, such as I and C and new genome-wide admixture possibly from the northeast, perhaps Poland or the Baltic (Papac et al. 2021). The genetic landscape after the arrival of steppe ancestry in Central-Northern Europe is thus not static, but under constant change from external and/or internal social processes.

The increased and continuous long-distance mobility of especially males across the CWC world has also been suggested archaeologically by Bourgeois and Kroon (2017) and linked to subsequent diffusion of new artefact styles between regions during the Corded Ware period (Furholt 2014). Thus, shifting archaeological trends and genetic changes across Europe during the Corded Ware, Bell Beaker, and Únětice periods begin to unfold beyond static culture-historical categories.

In Papac et al. (2021), all 75 CWC graves in the Central Bohemian cemetery Vliněves were sampled for DNA, yielding 21 genomes that passed quality checks. Of these genomes, only one first-degree genetic relationship was reported, between a father and son lying on each side of the cemetery. Only one other first-degree CWC genetic relationship was found in Bohemia, at Obříství, though they were reported more frequently for the later Bell Beaker (at three sites, including multiple links at Radovesice) and Únětice (at five sites) cultures in Bohemia (Papac et al. 2021: Table S4). Although similar dense sampling is needed from other CWC cemeteries, this one case study perhaps suggests that people were not necessarily buried together in close family units in the CWC, and that they were still very mobile during this period and connected their families in wider networks. If this is the case, such long-distance networks already in the Corded Ware period and well into the Bronze Age could be supported linguistically by a widespread Indo-European guest-host institution that secured proper treatment when visiting distant like-minded families or clans (Nørtoft 2017: 98–99 with references; Anthony 2007: 31–32, 303, 342; Mallory et al. 2006: 269).

Some studies using summed probability distribution of radiocarbon dates and/or archaeobotanical data as proxies for activity have suggested a decline in population in Northern, Northwestern and Central Europe during the late 4th millennium BCE, followed by an increase with the appearance of the CWC. However, there is regional variation to this pattern, hinting that some nuances in this decline could be due to population movements as well, and likely also different lifestyles and mortuary expression resulting in different amounts and types of material left behind (Colledge et al. 2019, Kolář et al. 2022, Barnett et al. 2020, Shennan et al. 2013, Hinz et al. 2012). However, a recent study using pollen data and multiple proxies for temperature now estimates a long decline in mean annual temperature in the Eastern Carpathian region starting c. 3400 BCE and lasting until c. 2200 BCE from 12 to 9 °C, and with intermediate temperature drops in cycles of 330–370 years at 3400 BCE, 3000 BCE, 2700 BCE, and 2200 BCE. The most pronounced events were at 3000 BCE (1.7 °C drop), and 2200 BCE (3.3 °C drop) (Ramos-Román et al. 2022). The drops at 3400 BCE and 3000 BCE may have been a strong incentive for some communities to abandon farming and rely more on animal husbandry. We see this with the rise of the Globular Amphora culture, the spread of the Pitted Ware culture in Scandinavia (with more emphasis on fishing/hunting), and the appearance of the stone packing graves in Jutland with a new herder symbology in the form of cattle burials (Johannsen and Laursen 2010, Iversen 2019, Szmyt 2010, Woidich 2014). Migrant pastoralists from the steppe, such as the early CWC, would be well adapted to this more mobile lifestyle in Central and Northern Europe.

Finds of plague (*Yersinia pestis*) in Neolithic skeletons dated to after the steppe migrations at first suggested that steppe migrants might have spread this disease around Europe (Rasmussen et al. 2015). However, a later study found plague before the steppe migrations (dated c. 2900 BCE) in Gökhem, Sweden, and suggested that a plague pandemic in Europe could have been an important factor in the decline in population.[15] A potential zoonotic transfer and breeding ground for this plague pandemic was proposed to be in the mega-towns of the Cucuteni-Trypillia culture where animals and humans may have lived close together in large numbers, although plague has not been found there yet (Rascovan et al. 2019). Later, others have found a more basal, possibly non-lethal, strain of plague in a hunter-gatherer from Latvia, c. 3200 BCE, the strain emerging al-

15 Further evidence for plague in larger kin groups from the later Scandinavian Funnel Beaker culture groups has recently been forwarded in Seersholm et al. (2024), supporting the hypothesis of plague as a factor in the Neolithic decline, at least in Scandinavia.

ready in the 5th millennium BCE, which could indicate that the earliest plague may not have caused an epidemic but rather happened in independent zoonotic events, in this case possibly from eating beavers or other rodents (Susat et al. 2021).[16] The (now) second major strain first described by Rasmussen et al. (2015), and widespread in the 3rd millennium BCE, may have been more dangerous than the basal hunter-gatherer strain, but being pneumonic it probably only caused relatively localized outbreaks similar to modern pneumonic plague, and may not have been a major candidate for the Neolithic decline. The more dangerous flea-adapted bubonic plague (the third known major prehistoric strain) was first found in an individual of the Srubnaya culture in the Volga region c. 1800 BCE (Spyrou et al. 2018), and recently also in Iberia c. 1200 BCE. The flea-adapted and non–flea-adapted strains seem to have coexisted for at least 2500 years until the flea-adapted became dominant (Andrades Valtueña et al. 2022).

With all these social aspects mentioned here, it should be kept in mind that The Third Science Revolution in archaeology, as Kristiansen calls it (most recently in Kristiansen 2022: 4), has rapidly increased the pace of new studies and the accumulation of data on the aspects described here. As exemplified in, for example, the CWC Y-haplogroups, the amount of hunter-gatherer admixture in the CWC, and the role of Neolithic plague, new data regularly makes us change the models of the past, to the effect that most overviews of these aspects become outdated in some details even before they are published, this study included.

2 The origins of the Corded Ware culture – current status

Papac et al. (2021) showed that there was a larger proportion of hunter-gatherer–like admixture (5–15%) in the early Bohemian Corded Ware than previously realized. Working proxy sources for some early non–steppe-like CWC female individuals are found in the Globular Amphora culture, Neolithic (hunter-gatherer–rich) Latvia, Neolithic Ukraine, or even the Pitted Ware culture of Scandinavia. These specific groups may or may not have contributed to the early Corded Ware hunter-gatherer admixture; some as yet unsampled groups with similar ancestry may have been more accurate sources. The Globular Amphora culture does provide a plausible archaeological link, already showing cultural contact with unsampled groups from the Ukrainian steppe – the pre-/early-Yamna Zhivotilovka

16 Recently, Krause-Kyora et al. (2024, preprint) has shown dogs to be potential intermediary carriers of plague to humans in Neolithic Europe.

group – around the time the first Corded Ware migrants appear in Central Europe (Szmyt 2021, Heyd 2021, Manzura 2016). Single Grave culture genomes from Denmark are now also modelled as having Yamna-like steppe ancestry (60–85%), and 10–23% Globular Amphora-like ancestry, but only minor (3–18%) ancestry from the local Funnel Beaker culture, a composition they also model for CWC genomes across Europe (Allentoft et al. 2024b: 12–13).[17]

The Zhivotilovka group in Ukraine have burial traditions that resemble typical Corded Ware positions (left-crouched = female, right-crouched = male, although the Zhivotilovka individuals have not yet been osteologically sexed), some stone shaft-hole axes (or 'battle-axes'), and single graves under a kurgan. We do not yet know the genetics of this Zhivotilovka group[18] or other, neighbouring hybrid steppe-farmer groups from the late Trypillia C2 group (Sofievka/Kasperintsy/Gorodsk/Vikhvatintsy/Usatove variants). Some were buried with stone hammer-axes, and some with cord-decorated ceramics (also prominent in many steppe groups), which will likely be important for understanding Corded Ware origins (Heyd 2021, Szmyt 2021, Manzura 2016, Kadrow et al. 2010, Szmyt 2010: 184–185). One of these late 4th-millennium BCE hybrid steppe-farmer groups, the Usatove culture around Odessa, is described by Anthony (2007: 271, 344–360) as having steppe elites ('patrons') in kurgans, and farmer 'clients' in flat graves. Patron–client relations are discussed in more detail by Ginevra (this volume).

Although the exact sources of farmer and hunter-gatherer admixture in the CWC have not yet been clearly identified, the Globular Amphora culture seems a

17 Globular Amphora culture genomes are labeled "Poland_5000BP_4700BP" in Allentoft et al. (2024a and 2024b).

18 Two genomes from one double grave associated with the Zhivotilovka group were recently included in two large preprint articles (Lazaridis et al. 2024 and Nikitin et al. 2024), but they were genetically very different from each other and from CWC genomes and may not be representative for the Zhivotilovka genetic ancestry in general. Lazaridis et al. (2024) did show the North(-west?) Pontic region ("west of 'Core Yamna'", and earlier Serednii Stih) to be the most likely source of the steppe component in CWC genomes, but still primarily with different Y-haplogroups (still primarily R1b-Z2103) from those common in the CWC (R1b-L151 and R1a-M417). "The geographical homelands of the Corded Ware and Yamnaya would … conceivably be in geographical proximity to allow for their synchronous emergence and shared ancestry. The Dnipro-Don area of the Serednii Stih culture fits the genetic data …" (24). The study thus supports the general North/Northwest Pontic source area described above and close genetic relations between North Pontic 'Core Yamna' and the steppe component in the CWC, but still without the 'smoking gun' for genetic CWC origins due to their mismatch in Y-haplogroups.

promising genetic and archaeological fit, and hybrid variants of the Trypillia C2 and Złota groups may also have been involved, as may Southern Polish Funnel Beaker and Funnel Beaker–related groups. The eclectic Budzhak group of the western Yamna in the Dnister region connecting the Zhivotilovka/North-Northwest Pontic Yamna and Globular Amphora cultures, as well as cultures in the Danube and Carpathians, likely reflects prolonged contacts and extensive mobility in this transition zone during the early 3rd millennium BCE (Heyd 2021, Ivanova 2013). This also indicates that the sudden expansion of people from the steppe may have been 'seeded' by these interactions both before and during the early 3rd millennium BCE (Heyd 2021, Włodarczak 2021). Expansion from the steppe may thus have been about trade as well as raiding, and not necessarily as violent as sometimes portrayed (Barras 2019), although occasional hostilities during this period have also been documented in Europe (Schroeder et al. 2019, Konopka et al. 2016, Fibiger et al. 2013, Haak et al. 2008).

To this we can add that no clear evidence for taking captives has been found in connection with the CWC, and that institutionalized slavery has not been generally suggested before the Early Bronze Age in Central Europe, e.g., in the Únětice culture (Meller 2019: 57, 67).

If we look at the Indo-European vocabulary, no clear Proto- (or even Core) Indo-European word for slavery is reconstructable; most attestations are independent secondary words in the daughter branches (Campanile 1998: 16-17). However, a few words are still of interest. One such word is **h₂m̥bhi-kʷolh₁o-* with the literal meaning 'moving around' found in Latin *anculus* 'servant' (only in liturgical contexts), and more commonly *ancilla* 'female servant',[19] Greek αμφί-πολος 'moving around; servant, handmaid', Mycenaean *a-pi-qo-ro* /ampʰi-kʷo-los/, 'servant',[20] and Sanskrit *abhi-cara-* 'servant'.[21] Both Greek, Indo-Iranian, and Latin also use this word in a religious or ritual context 'servant of the gods, priest(ess)',[22] so it may have been the old Indo-European context as well, instead of captives or slaves (Olsen 2019: 157).

19 Latin reflexes of PIE **h₂m̥bhi* are *ambi-* or *amb-* before vowels, but *an-* or *am-* before consonants, with *-n-* before velars (DeVaan 2008: 37). DeVaan (2008: 41) explains the unexpected *-i-* in *ancilla* as derived from a folk-etymological diminutive in the male *anc-ulus* given a new diminutive for the feminine **ank-elela* to Latin *ancilla* (for haplology of *-elela* to *-illa,* cf. **septemo-mēmbris* 'of the seventh month' [in the Roman calendar] to *septembris*).

20 For the Mycenaean word, see Beekes (2010: 95).

21 Initial laryngeal disappears in Indo-Iranian and syllabic **m̥C* becomes Sanskrit *aC.*

22 Cf. *abhicārá-* 'witchcraft', αμφί-πολος 'priest(ess)', Latin *anc(u)lare* 'serve the gods'

Another interesting word in this context is Latin *servus* '(male) servant, slave', perhaps from a stem **ser-u̯o-*. Olsen (2019: 158) tentatively connects this with the homonymous **ser-u̯o/ah₂-* (masculine/feminine), used in the same semantic realm[23] but referring to thievery and raiding, and found in Welsh *herw* 'raid (usually cattle), outlawry' and Archaic Irish *serb* 'theft' from **ser-u̯-ah₂-*, and possibly also in Hittite *šāru* 'booty' from an *o*-grade **sor-u-*.[24] From the o-grade and zero-grade, we could perhaps add Lithuanian *sarióti* 'devastate, loot' and Latvian *sirt* 'loot, raid' (LIV² 535; Nørtoft 2017: 89). If this connection is to be accepted, 'raid, loot' would be the original meaning, and 'captive, slave' in Latin would be secondary, understood as the bounty of raiding.

A similar semantic connection could be suggested for another word connected with raiding, Proto-Indo-European **lah₂-(u̯)-/*lh₂a-(u̯)-* (with laryngeal metathesis) seen in Proto-Germanic **launa-* < **lah₂u̯-no-* 'reward, recompense' (Gothic *laun*, Old Norse *laun* > Danish *løn*, Old English *lēan*, Old High German *lōn*; Kroonen 2013: 329), in Proto-Celtic **(ufo)-lawto-* < **lah₂u̯-to-* 'property, wealth' (OIr. *fo-lud* 'substance, material, property; equivalent, reason, cause', Middle Welsh *go-lud*, Old Cornish *wu-ludoc* 'wealth' (gloss: *dives*); Matasović 2009: 397–398), in Proto-Italic **luklo-* < **lh₂u-tló-* 'seizure, gain' with dissimilated instrumental *-tlo-* suffix and zero-grade in the root (Lat. *lucrum* 'material gain, profit'; De Vaan 2008: 349–350), and in Greek (Attic λεία, Doric λᾱία < **λᾱϝ-ιᾱ* < **lah₂u-i̯eh₂-* 'booty', (ἀπο-)λαύω 'enjoy'; Beekes 2010: 118, 842). De Vaan (2008: 350) proposes that this root could be connected with **lah₂-(u̯-)* 'to fight; army' found in Anatolian (Hittitie *lāḫḫ-* 'military campaign, journey', Cuneiform Luwian *lahhi(ia)-* 'to travel, campaign' < **ló/áh₂-*; Kloekhorst 2008: 510–511), in Greek (λᾱ(ϝ)ός 'men, army' < **lah₂-u̯o-*, Mycenaean *ra-wa-ke-ta-* /lāw-āgetās/ 'army-leader', Phrygian *lawagtaei* (dative singular) 'military leader'; Beekes 2010: 832–833; Matasović 2009: 234–235), and, suffixed **lah₂-iko-*, in Proto-Celtic **lāyko-* (Old Irish *láech* 'warrior'; Matasović 2009: 234–235).

Thus the loot, **lah₂-(u̯)-*, would be acquired by fighting or raiding, **lah₂-(u̯-)* (De Vaan 2008: 350), like the slave **ser-u̯-ah₂-* (at least in Italic) would be the captive (or part of the loot along with cattle and other livestock) acquired in a raid **ser-u̯-ah₂-*. In any case, it seems that the vocabulary for raiding is relatively clear, while the vocabulary for slaves or captives is less certain, and at the point of Core Indo-European probably not an institutionalized practice yet, though captives

(Mayrhofer 1986: 91–92, Beekes 2010: 95, DeVaan 2008: 41).

23 And both with a non-trivial *e*-grade + **-u̯o-* suffix (Olsen 2019: 158).

24 An *e*/*o*-grade variation also found in **deru̯o-/deru̯ah₂-* vs. **doru* 'tree' (Olsen 2019: 158).

may in some cases have been taken in a raid along with livestock. To the semantic field of armies, we can add **kor-(i̯)os* 'army' in Baltic, Iranian, Celtic, Germanic, and Greek, which has long been connected with early Indo-European warrior bands (Beekes 2010: 732; Kroonen 2013: 211–212, and more in-depth in McCone 1987).

Recently, Kroonen et al. (2022) re-examined Indo-European terminological evidence of agriculture for various stages of Proto- and Core Indo-European. They concluded that the area that archaeologically (and archaeobotanically) best correlates with the quite limited agricultural vocabulary reconstructable for Core Indo-European is the Northwest Pontic region in the late 4th to early 3rd millennium BCE, supporting the Indo-European homeland region discussed above.

A large genetic study on ancient horses has shown that the horses analyzed in CWC (so far) were wild, suggesting that steppe expansions in the early 3rd millennium BCE probably did not happen on horseback, although horses may have been domesticated without riding already in the Yamna period (Librado et al. 2021).[25] Intensive dairying on the steppe also seems to have started around the advent of the Yamna culture, 3300 BCE, roughly contemporary with the adoption of wheel and wagon technologies which allowed people to move farther away from the rivers and deeper into the steppe for pasture. In turn, dairy (a stable and mobile source of food), a mobile lifestyle, and horses in the herd being better at removing snow cover than other livestock (Wilkin et al. 2021: 350) may have enabled a much more stable subsistence, resulting in more successful births and lower child mortality and paving the way for a population boom on the steppe (Wilkin et al. 2021). To sustain such a rapidly growing population, these steppe herders would have had a high demand for new pastures, explaining their rapid expansion from the steppe around 3000 BCE (Heyd 2021: 386).

Overall, this may change the way we have traditionally imagined these migrations, with CWC ancestral migrants not riding on horseback. Whether they migrated in search of new pastures to support a population boom, fled from clan warfare and oppression, or were attracted by foreign resources is still an open question, and one scenario does not rule out the other. If people from the Yamna

25 Trautmann, et al. (2023) have shown that some human skeletons associated with the western Yamna culture in the Carpatho-Balkan region show evidence of horseback riding. This does not change the fact that horses from the CWC so far have been genetically unrelated to domestic horses on the steppe in the Yamna culture (Librado et al. 2021), but it may open up the possiblity that Yamna riders drove out ancestors of CWC groups (Zhivotilovka?) from the Ukrainian steppe and explain why Yamna and CWC Y-haplogroups are so different.

culture were the only groups suddenly riding horses, it may have been a considerable power factor to drive other steppe groups away (of which CWC may be the product).[26] At the same time, if herd sizes became larger and the steppe (and dairy) more intensely exploited, it is possible that, as a result of a population boom, second sons would have to leave the family to establish themselves in new territory, and perhaps in this regard make a name for themselves.

A prominent institution of making a name for oneself may be indicated by the Proto-Indo-European word(s) for 'fame' (as an adjective **ḱlu-tó-* 'famed, famous', and as a noun **ḱléu̯-os* 'fame', both from the root **ḱleu̯-*, 'hear'). Much later naming traditions in the historically attested Indo-European daughter branches still show reflexes of the PIE 'fame' word(s) as prominent elements, as in Slavic, Greek, Sanskrit, Illyrian, and possibly Germanic if the Gallehus horn's *Hlewa-gastiz* is interpreted as 'fame-guest',[27] a particularly prominent compound in Europe (Jackson 2012: 14–15 [Appendix]; also summarized in Nørtoft 2017: 90–100). We should of course not forget the parallel phrase 'fame imperishable' in both Vedic Sanskrit and Greek, which could go back to Core Indo-European **ḱleu̯os n̥-dgʷʰi-tom* (Watkins 1995: 173–178), a stage of Indo-European (excluding Anatolian) that may coincide with the Yamna period.

It is not so much the presence of this word in reconstructed Indo-European vocabulary that is interesting, but rather how widespread and well-preserved these two particular formations from the same root are,[28] as well as its prominent role in naming practices. The best comparison in the PIE vocabulary may be the widespread **h₁/₃nó(h₃)-mn̥* 'name' (whose exact reconstructed form remains a topic of debate), which also sometimes encompasses the meaning 'fame, renown' (e.g., Old Irish *ainm*), or both words combined (Greek, Tocharian, and Sanskrit)

26 We will need much more detailed bioarchaeological studies to determine who had signs of horse riding and who did not in this period, and thus which of these scenarios are most plausible.

27 For a recent argument that *Hlewagastiz* rather refers to 'shelter-guest', see Nedoma (2022). Even without *Hlewagastiz,* we still have Germanic attestations of the root in comparable contexts: **hleumunda-* < **ḱleu̯-mn-to-* in OHG (*h*)*liumunt* m. (f.), MHG *liumunt* m. 'Kunde, Ruf, Ruhm, Gerücht', and **hluda-* < **ḱlu-tó-* in the Merovingian and Carolingian royal names *Hlod-ericus, Chlod-ovechus* (Wodtko et al. 2008: 425–426).

28 Cognates in Old Irish, Sanskrit, Avestan, Greek, Armenian, Latin, and Old High German personal names from PIE **ḱlu-tó-*, and cognates in Greek, Old Church Slavonic, Latvian, Lithuanian, Sanskrit, Avestan, Old Irish, Tocharian A and B, and Illyrian personal names from PIE **ḱléu̯-os* (see examples with references in Nørtoft 2017: 89–90). An o-grade **ḱlou̯-ah₂-* with the meaning 'fame, reputation' is more widely attested in Baltic and Slavic (Wodtko et al. 2008: 426).

(Mallory & Adams 1997: 192). It may be that 'name' primarily served a practically necessary function as a label of identity (Mallory & Adams 1997: 390), while 'fame, famous' is a more abstract concept, rather useless in a daily practical context. The widespread preservation of this specific root for 'fame' – the two formations being attested in a total of eight or nine of the ten main Indo-European branches[29] between them, six branches each[30] (not attested in Anatolian) – indicates that it was an important part of at least Core Indo-European vocabulary, a prominent feature of early Indo-European culture, and potentially a driving force for long-distance migrations. It may also have been manifested in oral tradition and/or in the long-lasting custom of building very visible kurgans, which we see across most of the Yamna and Corded Ware cultures, as well as in several subsequent periods. At the same time, **ĥkléu̯-os* 'fame' may have had an important function in regulating behaviour, as the word often also had the connotation of 'reputation, rumour' – a bad reputation may have travelled fast in the kind of networks and guest-host institutions mentioned above.

3 Conclusion

Above, I have provided an overview of the current understanding of the migrations from the steppe throughout Europe in the 3rd millennium BCE, and some of the social aspects in this connection. A few additional hypotheses have been proposed, e.g., that the widespread preservation of a Core Indo-European word for 'fame, reputation', along with the search for fame, may have functioned both as a driving factor in the steppe expansions, and as a behavioural regulating function to maintain one's reputation in connection with a widespread guest–host institution. This set of related hypotheses is still tentative and should be tested further in the future.

29 Lumping together Indic and Iranian as Indo-Iranian, and Baltic and Slavic as Balto-Slavic (the least controversial super-branches, cf. Olander 2019), we get ten main branches. See also Wodtko et al. (2008: 425–432) for a cognate list for all IE forms of **ĥkleu̯-*.

30 PIE **ĥklu-tó-* is reflected in personal names in Old Irish, Sanskrit, Avestan, Greek, Armenian, Latin, and Old High German; while **ĥkléu̯-os* is found in personal names in Greek, Old Church Slavonic, Latvian and Lithuanian, Sanskrit, Avestan, Old Irish, Tocharian A and B, and Illyrian (see examples with references in Nørtoft 2017: 89–90). An *o*-grade **ĥklou̯-ah₂-* with the meaning 'fame, reputation' is more widely attested in Baltic and Slavic (Wodtko et al. 2008: 426).

Another hypothesis proposed is that the mix of Y-haplogroups R1a and R1b seemingly from different directions in Scandinavia may indicate that the linguistic ancestor of the Germanic branch was a mix of similar early Indo-European dialects perhaps distantly related to Italo-Celtic and Balto-Slavic, respectively. The presence of the Core Indo-European word for 'metal, copper', combined with the lack of metal finds in Northern Europe and Scandinavia in the Corded Ware period, may also indicate that the word was introduced into the ancestor of Germanic from speakers in the Bell Beaker culture. Alternatively, the R1b-rich Bell Beaker culture could have introduced the ancestor of Germanic in some form into Scandinavia, mixing with an already existing Indo-European substrate introduced by the previous R1a-rich Single Grave culture.[31]

31 Additional genetic evidence for internal changes in ancestry within Scandinavia after the initial arrival of steppe ancestry with the Single Grave/Battle Axe cultures has recently appeared, showing that East Scandinavian/East Baltic–derived Southern Swedish genetic components spread to Denmark along with Y-haplogroup I1 around 2200–1600 BCE (McColl et al. 2024 with supplementary notes), as also suggested in Allentoft et al. (2024b). This would correlate with a range of technological and mythological archaeological elements also found in Indo-European vocabulary, such as wool, spoke-wheeled chariots, domestic horses, and figurative mythologically loaded iconography (Iversen 2024).

Part II

The dog (or wolf) as a symbol of savage male youth warriors in the Corded Ware culture?

1 Human–canid relations in prehistory

Inspired by Brown & Anthony (2017), and based on accounts in Kershaw (2000), Petrosyan (2011, on traditional Armenian 'Black Youths'), and others, Kristiansen et al. (2017) and Anthony (2022) have proposed a model for the formation of the CWC which holds that steppe migrations were driven by young male warrior bands identifying as wolves or dogs, progressively roaming further into Europe while raiding and taking local wives.

The remaining part of this study will make the case that the association of canids with male youths remains to be convincingly demonstrated archaeologically in relation to these steppe migrations, and that the presently available data for the CWC rather shows a clear association between canids and *females*.

The cultural conception of Indo-European wolf-/dog-warrior institutions has been put forward by various scholars during this and the previous century (more recently McCone 1987, Kershaw 2000, Das & Meiser 2002) based on a large body of comparative mythological and ethnographic evidence, and is well attested in various Indo-European traditions. Kristiansen et al. (2017) and Anthony (2022: 67–68) apply it specifically to the formation of the CWC; Brown & Anthony (2017, 2019) apply it to a steppe site in Samara from the early 2nd millennium BCE and, using comparative mythological evidence, project it back to Proto- (or at least Core) Indo-European societies. In this model (as described in Brown & Anthony 2017, 2019), young male boys (c. 7–14 years old) are initiated into a wolf/dog warrior sodality and live a savage wolf/dog life raiding their surroundings for about four years until they reach adulthood, shed their wolf/dog skin in a wolf/dog sacrifice, and reenter society. Relating to the formation of the CWC, these wolf/dog warrior bands are suggested to have acted as scouts for steppe relatives to follow, resulting in an actual migration (Anthony 2022: 67–68). Following this model, we would expect to see archaeological traces of this relation between wolves/dogs and boys or men in the CWC. Archaeological evidence for this wolf/dog sodality is suggested by Brown & Anthony (2017, 2019) to be found at the Srubnaya culture site Krasnosamarskoe (c. 1900–1700 BCE) in the Samara river valley, Russia, where 51 dogs and 7 wolves were sacrificed in a nearby settlement building, but

not buried in the kurgan. Their heads were cut into small, standardised pieces. The fact that the dogs are mostly male (71–90%, depending on certainty), and that a few of the canid bones found at the site are wolf bones, suggests to Brown & Anthony (ibid.) that this is a male-oriented ritual fitting their dog-warrior theme, and that the wolf bones would have symbolized warrior 'savagery'. However, it should be mentioned that the non-adults (in their study defined as below 17 years old) buried in the nearby kurgan at Krasnosamarskoe were mostly (15 out of 22) below Brown & Anthony's proposed 'age of initiation', and that only one out of the 22 non-adults (a juvenile) has been sex-determined (in this case a male). Furthermore, neither the high ratio of male dogs over females nor the practice of eating dogs or opening their craniums, possibly to eat the brain (Bökönyi 1974: 318–320), is necessarily unique in the European Neolithic or Bronze Age. A genetic study on dogs from across Neolithic–Bronze Age Western Eurasia showed that 72% of them were male (a ratio of 23:9 male:female; Bergström et al. 2020: Supplementary Information 11). Even so, the standardised chopping of the dog craniums at Krasnosamarskoe may still be unique.

Anthony (2007: 411) also uses dogtooth pendants found with males in the Sintashta culture as a supporting archaeological argument for the male wolf/dog sodality in Indo-European societies. According to him, dogtooth pendants are numerous in the Sintashta culture, sligthly earlier than the Krasnosamarskoe site, and usually associated with Indo-Iranian speakers (Narasimhan et al. 2019, Kuz'mina 2007, Anthony 2007: 408–411, Bjørn 2022, Grünthal et al. 2022). Anthony (2007: 411) exemplifies this with dogteeth (19 pieces) in Sintashta at Kammenyi Ambar (dated 2030–1660 cal BCE; Narasimhan et al. 2019: Supplementary Materials 39) in kurgan 4, grave 2. This is a multiple grave with four males (three brothers) and one female, all genetically analysed. Two of the three brothers were 3–5 years old, one 3–9 months old, and they had high "West Siberian Hunter-Gatherer" ancestry, making them genetic outliers in the Sintashta culture.[32] The fourth boy was also 3–5 years old, and the female was 7.5–12.5 years old (Narasimhan et al. 2019: Supplementary Materials 44, 46, 49). The boys here were thus well below the usual 'age of initiates' for Indo-European wolf-/dog-warriors. If, as Anthony suggests, the dogteeth belonged to the boys, and not the girl (only genetically sex-determined recently), they are so young that the dogteeth probably

32 Although we should not automatically equal genetic ancestry, culture, and language, this outlier ancestry opens the possibility that the parents of these three brothers may have also had a non-Indo-European cultural and linguistic background, e.g., related to the neighbouring Seima-Turbino horizon.

functioned as protective amulets, metaphorical pets, or companions in the afterlife, rather than as emblems of wolf-/dog-warriors. Further associations between dogteeth, sex (or gender), and age in the CWC will be treated below.

An interesting parallel to the dog sacrifice at Krasnosamarskoe in the early 2nd millennium BCE may be found in the early Usatove culture of the late 4th millennium BCE in the Odessa area of the Northwest Pontic. According to Razumov (2018: 62), at least 73 dogs have been found at the Usatove culture settlement Mayaki, interpreted as a ceremonial center with regular dog sacrifices, but they have not been sex-determined. Razumov also mentions possible dog images on a grave stela from a mound at Usatove. Additionally, there are dogs buried in 'guardian-like' locations in mounds of seemingly rich human burials (e.g., on pit ceilings or in grave or mound entrances), often with an adult and child buried together, but a clear pattern in the sex or gender of either humans or dogs does not seem obvious in these burials (genetics could determine this further). Razumov notes that dog sacrifices (burials of both whole animals and skulls) and especially dog-like figures painted on ceramics are well known in the neighbouring Cucuteni-Trypillia culture with a primarily farming economy.

Further east in the steppes, dog burials are also known from the Dereivka 2 settlement, and paired burials of dogs in separate pits are known from Eneolithic cemeteries on the Dnipro and the Middle Don. Dog figurines have been found in the entrance of the 'princely' kurgan 31 of the Novosvobodnaya culture (c. 3000 BCE) in the North Caucasus, which also had contacts with the Usatove culture (Razumov 2018, with references). Thus, the guardian-like function of dogs in mortuary contexts may have been in effect in some areas of the steppes as early as the late 4th millennium BCE.

Brown & Anthony (2017: 146) mention that the guardian-like theme for dogs is a widespread pan-Eurasian complex also found in the Chukchi and Tungus tribes in Siberia and even in the Americas, hinting at a possible Palaeolithic origin, presumably beginning in Siberia. The afterlife guide ('psychopomp') theme for dogs is also known from the Chukchi and Tungus. Archaeologically, Mesolithic dog and wolf sacrifice has been found in mortuary contexts near Lake Baikal and the mouth of the Ishim (Brown & Anthony 2017: 146), while genetic evidence has linked Native Americans and East European Hunter-Gatherers, both with ancestors in Siberia, specifically around Lake Baikal (Raghavan et al. 2014, Sikora et al. 2019). The earliest genetically, morphologically, and temporally confirmed domestic dog (*Canis lupus familiaris*) bones in Europe are found in the Basque Country, dated to c. 15,460–15,146 cal BCE with several contenders in Italy and Germany; all carry haplogroup C, which has been traced back genetically to

22,000–14,000 BCE in Europe during the later part of the Last Glacial Maximum (LGM). Less certain so-called 'dog-like wolves', some of which may reflect an intermediate development between wolves and domestic dogs, have been found from the Altai (from c. 31,000 BCE) to France (from c. 29,000 BCE), and in the East European Plains from c. 25,000–22,000 BCE. Palaeogenetic studies suggest that wolf domestication may have begun slowly already around 39,000–35,000 BCE and accelerated during the LGM (Hervella et al. 2022). Although more work needs to be done to pinpoint the specific origins of dog domestication, it has been shown that the earliest domestic dogs in Europe derived from Siberia (Bergström et al. 2022: 5).[33] East European Hunter-Gatherers also derived most of their ancestry from Epi-Palaeolithic Hunter-Gatherers from Siberia (Sikora et al. 2019). We thus have a genetic link connecting both early hunter-gatherers on the steppe and early dogs to Eastern or Central Eurasia (including Southern Siberia), as well as the afterlife/guardian dog theme, and dog sacrifice in mortuary contexts, similar to that known in the Indo-European world. While it is for now only correlation, causation is starting to become increasingly attractive.

In rare cases, CWC males, or their artefact insignia, can be connected with dog burials. One case is grave 148.2.1 at Stará Hora, Kyjov-Netcice in Moravia (find group IIIa–b, middle-late CWC), where the skull of a presumed male (based on the grave goods) of c. 50 years was buried. This individual had remains of a possible dog skull, a battle-axe of calcareous sandstone, a stone flat axe of green schist, a cord-decorated beaker, an undetermined large decorated vessel, a blade of glacial flint, and a pig canine (Šebela et al. 1999: 85, 194). Another case is in a grave of the Danish Single Grave Culture in Esbjerg where a dog is buried in a grave mound with a battle-axe, but without any human remains (Hübner 2005: 1320–1321). And at Nickelsdorf in Krossen, Eisenberg, Germany, two young dogs were buried at the feet of a man (Matthias 1969: 14). Conversely, in Köthen, Anhalt, Germany, a dog was buried in front of the face of a left-crouched (indicating female) human (ibid.). Other examples of dog burials include a cave shaft in the Kirschbaumhöhle, Northern Franconian Alps (precise location still secret to prevent looting), where multiple animal and human remains were found. Here, a dog skeleton was found with two human skulls (an adult male and a probable female of late-adult to early-mature age). Both the dog and the two humans were C14-dated to the early CWC (2910–2632 cal BCE; Seregély et al. 2015: 226–227, table 3). The dog was determined to be a *Canis familiaris palustris* (similar to a

33 With a subsequent 5–25% admixture from the Neolithic onwards with origins in another population related to the Syrian wolf (Bergström et al. 2022)

modern Spitz), male, and more than 5 years old, based on its dental wear. Another dog, not sexed or C14-dated, but certainly a dog, was subadult and less than 5 months old. A neonate or foetus of a third (undated) canid, either dog or fox, was also found. Sheep/goat remains were also found, dating to later periods. All three canids were complete skeletons indicating that they had been brought into the cave whole (Seregély et al. 2015: 226–227).

Other examples of CWC-associated dog burials are known from Linköping, Sweden (the Battle Axe group of the CWC), where an almost complete skeleton of an elderly dog was found together with two human adults, male and female, in typical Corded Ware positions. The dog, like the human female, was lying on its left side, close to the female (Behrens 1964: 50–51). It seems likely that the CWC dog in Linköping was part of the buried family with no ritual connotations. The same could be said for the dog(s) associated with the adult male and probable female humans in Kirschbaumhöhle.

At least three dog skeletons are known from the CWC in Poland. One, found in a collective grave mound in Zakłodzie, Zamość, Lublin, with a bone point sticking out of its ribs, was interpreted as having been killed in connection with the burial of an adjacent human skeleton. A dog burial was also found at Strzyżów, Hrubieszów, Lublin, without grave goods but possibly part of the Corded Ware cemetery,[34] lying on its side with the head towards east (Behrens 1964: 38). Another dog was buried in the primary layer of a mound northwest of the presumably contemporary primary human grave in Miernów kurgan 1, grave 4, in the Kazimierza Wielka district, Little Poland Upland. The human buried in this grave was of mature age, male, and lying with the head towards west and on his right side. The grave was dated to the early CWC 'A-horizon' based on the grave goods, which consist of a Thuringian amphora and a long flint blade. The dog was also on its right side, but with the head southwards (Włodarczak 2006: fig. 23, fig. 43, 89–90). We could interpret the dog's placement in the mound – not the grave – as having a guardian-like function, or we could use the male sex/gender of the associated human to support the male dog-warrior model. On the other hand, no battle axe (if interpreting this as a male warrior symbol) was present in the grave. See Figure 2 for a (non-exhaustive) map of dog burials in the CWC and contemporary cultures.

34 Another single CWC dog burial in Strzyżów is mentioned by Behrens (1964: 38), together with two vessels originally attributed to the CWC but later connected with the Bronze Age Mierzanowice period instead (Kołodziej 2010: 143, 168).

FIGURE 2. Non-exhaustive map of dog burials from the Corded Ware culture (red), Globular Amphora culture (green), Eneolithic–Early Bronze Age steppe sites (black), Late Maykop/Novosvobodnaya culture (grey), and the sacrificial site at Mayaki (purple square). For Dnipro and Middle Don, the specific sites are unknown to me so they refer to general areas. Map: Mikkel Nørtoft.

Dog burials are also known from the partly contemporary Globular Amphora culture, e.g., in Strzelce, Mogilno, Poland, and also in the Złota culture (with mixed CWC and Globular Amphora culture traits) at the Gajowizna cemetery (Behrens 1964: 34–38, Witkowska et al. 2020).

Altogether, for the CWC, we have 7 out of 8 graves with some indication of sex or (mostly) gender determination: 1 female and 4 males in single graves, plus 2 graves with both males and females. From this, there does seem to be a majority of males with dog burials. However, a Chi-squared (goodness-of-fit) test on the 4 males and 1 female shows that the male/female difference is not statistically significant ($p = 0.18$, determining signifance at $p < 0.05$) because the sample size is so small. If we compute the p-value by Monte Carlo simulation with 2000 replicates to correct for the small sample size, the result is even further from significance ($p = 0.37$, using base R in RStudio). In the two cases where dog(s) were buried

with a presumed male with age determination, it was an unspecified adult and a c. 50 year-old individual. Thus, there seems to be no particular reason to regard these cases as signifying a male initiation of youth warriors rather than just life companions buried with their owner.

In a later pit at Nad Wawrem, Złota, five dog skeletons were placed on three sides around a dismembered human skeleton, likely belonging to the Early Bronze Age Trzciniec culture (Behrens 1964: 38–39).

Other Early Bronze Age examples of dogs in graves include a number of British Bell Beaker graves, a Bell Beaker grave in Corderoure, Northern Spain (also with a human skeleton), as well as multiple dog skulls (both whole and broken specimens) in a multiple Bell Beaker grave (19 human skulls), the dogs reportedly being part of the burial ritual (Behrens 1964: 53–54).[35] At least 22 Iberian Eneolithic and Bronze Age sites have dog remains in funerary, settlement pit, and special ditch contexts, probably relating to different functions. All three contexts have been found at the same site, Camino de las Yeseras, showing that dogs may have filled multiple social and religious roles in the same community (Daza-Perea 2017).

In a survey by Kołodziej (2010) of animal burials in Central and Eastern Europe in the Early Bronze Age – i.e., after the CWC – 23 cases of dog remains (and one fox) of both sexes and all ages were found, out of 78 animal burials in total, some of them mass burials. In 11 cases there was some possible connection with a human, of which three were in settlement contexts,[36] most others in cemeteries or mounds. Dogs were buried three times with an adult female, twice with an adult male (other animals are also found buried with males, e.g., cattle skulls and sheep/

35 A closer bioarchaeological study of these skulls (humans and dogs) might be enlightening for this question.

36 Including Soraksár, settlement features 2, 3 and 4 (c. 5 m apart), at the Botanical Garden in Budapest, associated with the Nagyrév culture who normally cremate their dead. In feature 4, a pit, an adult male was buried, strongly tied up and with his head lying 40 cm lower than his feet. In feature 3 (directly next to the human burial), an adult male dog with a broken skull, three young oxen, many potsherds, and a bone awl were buried with a burnt layer of ash at the bottom. Feature 2 contains seven heads of cattle in an intricate formation, seemingly buried in September or October. The cattle skeletons and the dog skeleton did not seem to have signs of being eaten, but some had broken skulls. The bones of at least five sheep and three pigs were also mixed into the pits. Most of the animal bones were from males, and features 2 and 3 had traces of fire. These were interpreted as human–animal sacrifices after the harvest (Kołodziej 2010: 193–194, 214–215, 226–227, 231–232, 236–238, 266-267).

goats, and in one case – Brno-Černá, Únětice culture – a man's head was placed on top of the dog's head). In another case, an older male human was buried on top of two dogs and two sheep, and in a third case, a dog was buried after the burial of a woman (25–30 years old) and three children: a 17-year-old female, a 13-year-old male, and a 3-month-old infant (Kołodziej 2010: 159–206, 237, 247–248). This evidence does not suggest a male warrior pattern, even after the CWC period.

It has been proposed that animals (including dogs) carefully buried in cemeteries without humans, but sometimes with 'grave goods' typical for the humans in the cemetery, were substitutes for humans whose bodies could not be recovered, e.g., if they had drowned or were lost in battle (Kołodziej 2010: 267 with references). This could perhaps explain the quite varied ages and sexes of such animals, either to reflect the dead or because they (mostly the dogs) were life companions to the dead. The same argument has been made regarding animals buried with humans, mostly dogs (Kołodziej 2010: 268). Cattle is mostly interpreted as a display of wealth for the dead or as food for the afterlife (or the funeral feast, including offerings to the gods), while dogs are interpreted as life companions or a guardian after death, but each case may have different symbolic meanings in the same culture, and we should not assume that these were the same across an archaeological culture (ibid.).

Although much too late to be relevant for the steppe migrations, a grave from the Early Iron Age in a pit complex (pit 284) at Kapitan Andreevo, Southern Bulgaria, is an interesting case. It contains a young genetically male individual (16–18 years old) who was possibly thrown in the pit. His skull was smashed around the time of death, and a dog skeleton lay in the southern part of the pit (Lazaridis et al. 2022: Supplementary Information 101–103).

Most dogs found in the 4th and 3rd millennium BCE were small-to-medium Spitz-like dogs, the CWC dogs being slightly larger than those known from Swiss lake dwellings (Kyselý 2021). Dogs of these sizes would be suitable for hunting small game, for herding in general, and for guarding, mostly by barking at incomers, but unsuitable for battle or for protecting herds from wolves or bears. In the Hungarian Bronze Age they seem to have been used ritually as foundation sacrifices, while in the Neolithic and Eneolithic, they were rather buried with humans (possibly as companions) or eaten (Gál and Bondár 2022: 49–50). From this, it does not seem straightforward to associate dogs with war as in Brown & Anthony (2019: 101).

In summary, the data does not convincingly show that dog burials around the time of the steppe migrations in Europe were especially associated with males. In the few CWC cases with sex-determination of humans buried with dogs, there is

an overweight of males (adult and mature, but too few age-determined graves to rely on), but the sample size is still too small for this to be a significant difference, and we also find cases with both males and females together, indicating that the dog was rather part of the family. In the wider scope, very few cases had any sex, gender or age determination, and the dogs were buried in different ways and locations, which may indicate different roles. Sometimes the dogs are buried in the entrance of the kurgan, perhaps hinting at a guardian-like function, and sometimes they are buried close to humans inside the grave, occasionally with what could be families (genetic kinship would help interpret this). Sometimes dogs are buried along with other animals, some of which have been larger sacrifices, with no specific warrior connotations. The most interesting case around the time of the steppe migrations, and the closest parallel to Krasnosamarskoe, is the 73 or so dogs killed at the Usatove culture site at Mayaki. Dog burials vary in frequency over time and geography in later periods, but treating them further would be beyond the scope of this paper.[37]

2 A prestige measure for grave good categories applied to the Corded Ware culture in Moravia and Bohemia

Before giving a wider overview of dogtooth ornaments, this section will attempt to quantify the prestige value (or 'exclusivity') of dogtooth and shell ornaments relative to other categories of grave goods. This is applied here to a dataset of 56 adult CWC graves in Moravia, both scattered graves and smaller cemeteries, as well as 135 adult graves from larger cemeteries in Vikletice and Čachovice (less than 2 km apart), Northwestern Bohemia, and in Vliněves, Central Bohemia. In order to correlate the presence of dogteeth with sex and age, only data from graves with preserved skeletal remains is included. It is important to remember that we can only quantify the material that was preserved, and quantification of any fragile organic grave goods that may have carried important meaning, such as textiles, mats, and baskets, is usually not possible. If females, for example, expressed wealth and status more through textiles than men did, the lack of such preserved material obviously skews the analysis towards more wealthy male

37 Generally, dog burials become very rare in the Central and Northern European Middle Bronze Age, but are still common in Mycenaean Greece, and increase again in Europe in the Late Bronze Age and Iron Age (Jernejčič et al. 2018, Prummel 2006, Behrens 1964: 34–39, 50–54, Daza-Perea 2017, Razumov 2018).

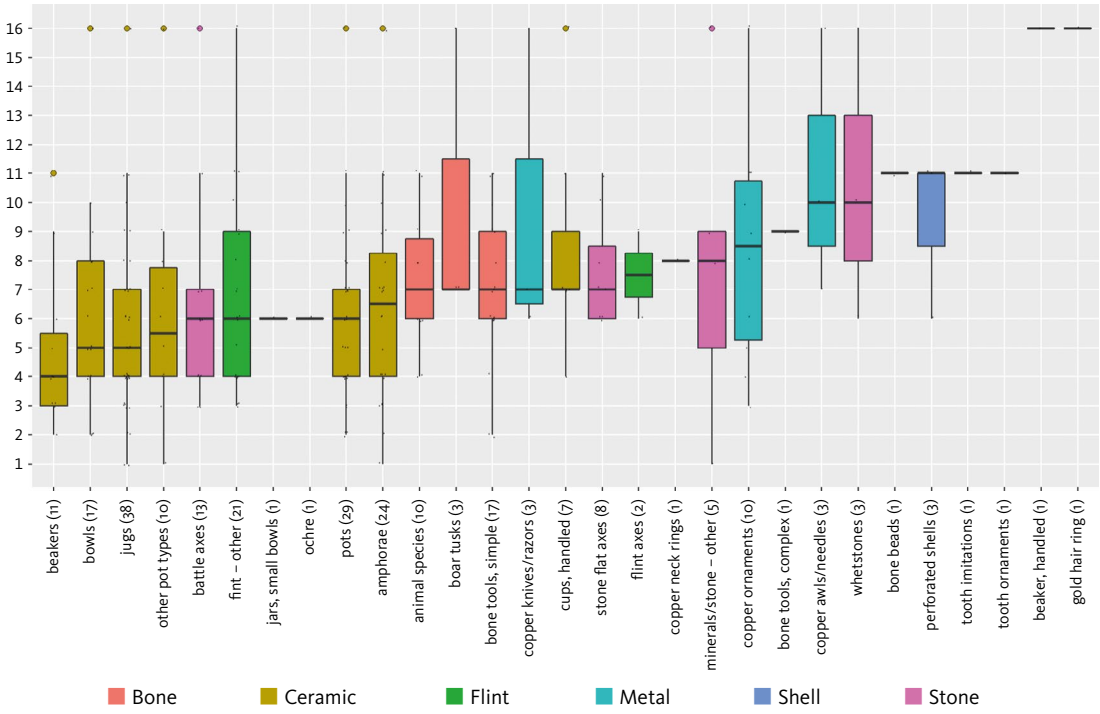
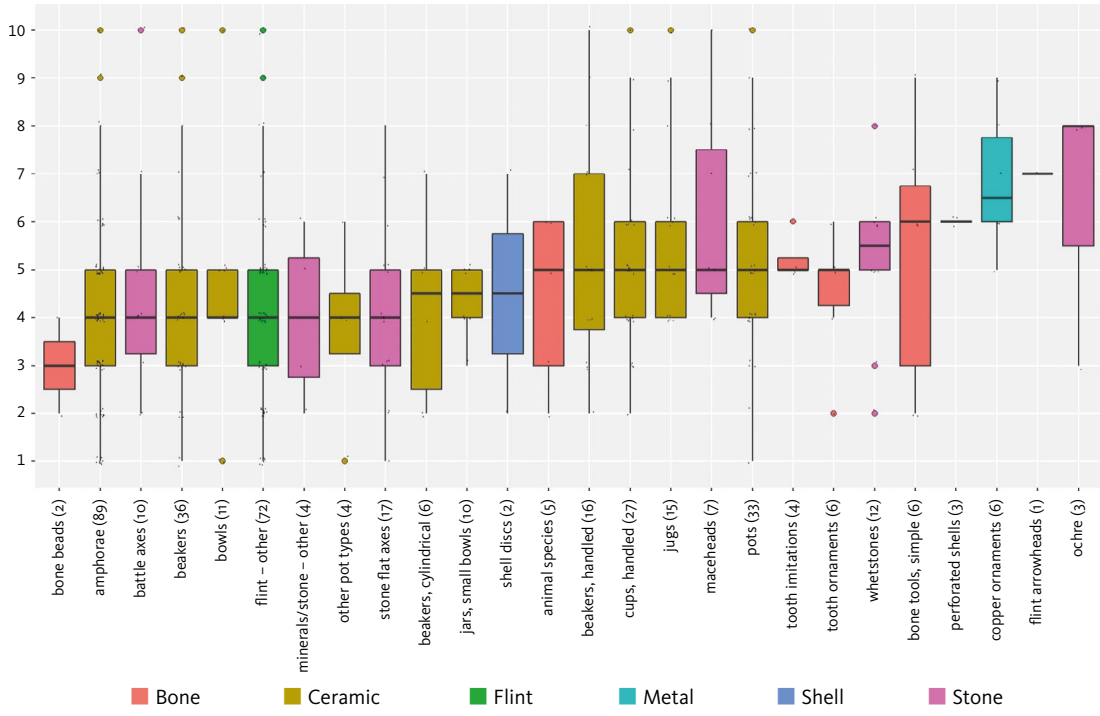


FIGURE 3. Distribution of TOT (total object types) for each grave good category in the CWC study area (only graves with one adult). *Left:* Moravian CWC; *right:* Bohemian CWC. Grave good categories on the *x*-axis and the distribution of TOT for each grave good category as a scale of grave 'richness' on the *y*-axis. The boxes and whiskers span the range (1st–4th quartiles, excluding

graves. A qualitative study would have the same preservation bias, but it may be more apparent here because quantification often requires making rigid choices about categorization. In a previous study (Nørtoft 2022), a sample of 81 graves (all age groups) from two catalogues (Kolář 2011, Šebela et al. 1999) of the Moravian CWC (c. 2700/2600–2200/2000 BCE; Kolář 2018, Peška 2021) was collected and quantified in terms of their grave goods and grave-pit depths using eight value and wealth measures. These measures include the depth of the grave pit, estimated meat expenditure, the number of grave good categories in each grave (here called *Total number of Object Types*, TOT), estimated manufacturing hours of grave goods, the skill required to make them, the distance to the raw material, and the scarcity of the material.

Scarcity is not necessarily a marker of high object value; some simple and local items without much value can still be rare in grave contexts (the predominant



outliers) of TOT scores for each category, and the horizontal line in each box is the median. Outliers (beyond the 1st and 4th quartiles) are represented by single-coloured dots. The small black dots indicate the actual data points. On the *x*-axis, the total grave count for each category is shown in brackets. The medians are used as prestige values for the grave good categories.

find context in the CWC). Therefore, an extra measure of the value of grave goods, *prestige*, was generated by applying the distribution of the TOT measure for each grave good category, visualized in a box-whisker plot specific to each study case/region; see Figure 3. With this method, we get a better idea of which objects in an assemblage are more exclusive compared to others, and we can compare differences in grave good values between study cases.

Because each grave good distribution gives a spectrum of TOT, we can use the median of each category's TOT spectrum as the prestige value for each grave good category. Furthermore, we can standardise these values by dividing the TOT median by the top TOT score in the spectrum to get a relative value (ranging from 0 to 1, like Grossmann 2021 normalizes scarcity) comparable between cases with different ranges (Bohemian TOT scores in the range 0–10 and Moravia 0–16 in this example when including graves without grave goods). Non-exclusive ob-

jects (on the left in the boxplot, e.g., bone beads in Bohemia) which are also rare (although the bone material is not as rare) get a low score (here a 3, normalized 0.3) if they are found in graves with generally few other grave good categories. Using a general scarcity measure for object types (as in Grossmann 2021), bone beads would have gotten a high score even though they're not found in any rich graves.

Other scarce but locally available objects, such as shell beads (mother-of-pearl/nacre), are primarily found in the upper half of the TOT spectrum, giving a higher prestige value with medians of 6 (normalized 0.6) in Bohemia, and 11 (normalized 0.69) in Moravia.

Extremely rare and exclusive items such as the single gold hair-ring only found in the richest grave on the TOT spectrum (a c. 20-year-old male-gendered individual), gets the highest score with a median of 16 (normalized 1).

The category *tooth ornament* represents perforated ornaments made primarily from dogteeth, while *tooth imitation* represents imitations of dogteeth made from the bone of other animals. The latter indicates that the symbolism of dogteeth was so important that they were worth copying using abundant materials, perhaps comparable to faux fur in the modern world. In the Moravian sample of 56 graves, the imitated and real dogtooth pendants are found in the same grave, second highest in the TOT spectrum with a median of 11 (normalized 0.69). In Bohemia, these are a bit lower on the TOT spectrum, with a median of 5 (normalized 0.5). By comparison, another rare dental grave good, boar tusks (worked in two graves and unworked in one grave), usually found with male individuals, are somewhat lower with a median of 7 (normalized 0.44) in Moravia and do not feature in the Bohemian sample. In the Moravian CWC, some boar tusks have traces of metal on them and sometimes appear in graves with other metallurgy tools such as moulds. This suggests that some boar tusks, due to their hard surface, were used as tools for smoothing the surface of metals (Peška 2016). Battle-axes (often termed axe-hammers or hammer-axes in Czech CWC literature) are often interpreted as a general elite male symbol in the CWC (e.g. Heyd 2004: 197), but in both samples here, they have a lower median than tooth and shell ornaments (6, normalized 0.34, in Moravia; 4, normalized 0.4, in Bohemia)[38] and thus appear to have lower prestige value than the typically female-associated dogteeth (fake

38 Removing early CWC-period graves in Bohemia (generally poorer, and where tooth and shell ornaments do not appear) before doing this analysis still resulted in a median of 4 for battle-axes on a sample size of 110 adult graves from Bohemian CWC period II–III.

or real) and shell beads. Use-wear studies on archaeological battle-axe specimens from the Netherlands and Denmark, compared with use-wear traces on replicas subjected to various experiments, show that they were not suitable for cutting down trees (unlike edge-polished flint axes), but better for uprooting trees (with matching use-wear traces), and they may have been an integral part of a toolkit for opening the landscape for transport and ploughing. Such opening of landscapes is especially evident with the spread of the CWC in connection with burning down trees, while in the West Frisian CWC settlements on dunes in marshlands, battle-axes are rare. Other experiments showed that using them as weapons (on dead animals) did not show clear use-wear traces, so additional functionality as weapons cannot be excluded (Wentink 2020: 115–126). A use-wear study on two CWC 'battle-axes' from Lower Silesia, Poland, found that one of them seemed to have been used for a long time, possibly for woodworking, while the other had unexplained use-wear traces, perhaps partly removed before grave deposition (Kufel-Diakowska and Skuła 2015). Tilley (1982: 14–15) also showed that in the Scanian Battle Axe culture, battle-axes were found more with graves containing fewer than four grave good types (67%) than graves with more than four grave good types (33%), the richest graves in the assemblage having nine grave good types. Fenton (1984), based on experiments, showed that they may have taken a long time to make (c. 20–25 hours, mainly for pecking and drilling the shafthole), but that their manufacture did not require much skill. Altogether, this suggests that battle-axes were neither dedicated weapons nor purely prestige objects, but often utilitarian items – and while they were likely markers of CWC male identity or even a sodality, they were not exclusive, and thus probably not elite symbols.

Mother-of-pearl beads were mostly made of local shells (especially *Unio* species) with a mother-of-pearl surface. Perforating and polishing the shell without breaking it may have required a specific technique, and its shiny white surface, hardness, and toughness compared to other shell materials, as well as the time required to make each bead, may have added to their value (Sakalauskaitė et al. 2019, Petzold 2005: 4–5). The perforated and often polished animal teeth (and their imitations) would have taken considerable time to make[39] (especially when including their often high frequency in some graves), which may also have affected their perceived value (Petzold 2005: 2, 5).[40]

39 Typically more than most bone tools with more practical functionalities. Personal bone pins may also have had more symbolic importance (and craft finish) than bone tools (Petzold 2005: 2, 4–5).

40 In the author's personal experience with wild boar (summer 2021 in Steinzeitpark Dithmarschen), even extracting teeth from an animal skull requires a good deal of effort.

It is also important looking at the sex/gender distribution of tooth and shell ornaments. As is well known, Corded Ware gender is, apart from gendered grave goods, primarily marked by a strictly gendered body position and orientation, by which females are buried on their left side (head east), and males on their right side (head west). This holds also for many of the buried non-adults (Turek 2016: 343–348). This pattern generally correlates well with osteological (and genetic) sex determination, and body position in the CWC is often used as a proxy for gender. However, exceptions to this pattern do occur (see Turek 2016 for a discussion on this topic for the CWC, and for counterexamples that challenge traditional binary gender views of the past, especially for non-adults).

3 Description of selected Czech CWC graves with dogteeth and shells

Here follows an overview of Czech CWC graves with dogtooth (and occasionally shell) ornaments, including some non-adult graves that were excluded in the quantitative analysis above, and two graves without skeletal remains (in Bohemia); in total 81 graves from Moravia and 299 graves from Bohemia, of which 17 graves contained either dogtooth ornaments, dogtooth imitations, or shell ornaments (see Appendix). In the Moravian sample, one grave contained dogtooth ornaments and shell beads, and three other graves contained shell beads without dogteeth. In the Bohemian sample, three graves contained both dogtooth ornaments (including wild animal teeth) and shell beads, six had dogteeth and no shell beads, while two contained shell beads without dogteeth. Tooth imitations only appeared in graves with real dogteeth. All graves with dogteeth contained adults, except one child grave in Vliněves, Bohemia (gr. 1423, female left body position and genetically female; Papac et al. 2021), also containing shell beads. No male individuals had dogteeth, but one older male from Moravia (Ivanovice na Hané 4, gr. 810), rich in grave goods (11 on the TOT scale), had three mollusc shells, now unfortunately lost. A brief description of the grave goods from selected graves is given here, of which only the Bohemian individuals were examined by forensic anthropologists more recently (Shbat et al. 2009).

- **Marefy grave 177.1.1** (Šebela et al. 1999; see Figure 4): Situated on a small hillock and buried into a circular grave pit, this grave contained an individual who could not be osteologically sex-determined (mandible looks female, frontal bone male) or clearly age-determined. However, the body position

FIGURE 4. Top view of grave 177.1.1 at Marefy. Drawing: Mikkel Nørtoft, based on Šebela et al. (1999).

(left side with head east) and grave goods indicate a female that is anatomically described as "relatively old" or "elderly" (grave and anthropological descriptions in Šebela et al. 1999: 96, 196). In the grave, 375 pendants of dogtooth (incisors, molars, and canines) – all perforated and polished, and estimated to originate from about 89(!) dogs – were laid out in two concentric rings in front of the body. This display of dogteeth is likely to be the highest number recorded across the CWC.[41] To this, we can add 57 dogtooth imitations made from bovine bone, 2 unworked bovine teeth, 4 badger canines, and under the right thigh, 101 cylindrical bone beads. This grave also had 5,464(!)

41 Only challenged by a female grave in Prague–Březiněves with teeth from 73 dogs; see Kyselý et al. (2019) for a more detailed description of this grave.

mother-of-pearl (nacre) beads in a heap behind the head, and fragments of 1,700 other shell beads (*Unio* species), all perforated and polished. Apart from this impressive display, this grave also had the most copper in the whole assemblage of 81 Moravian graves, with a composite necklace (of 8 spirals) and three composite bracelets of both wire tubes (64 pieces) and sheet copper (24 pieces), as well as copper hair decorations (2 spiral wire pieces). This is a very large amount of grave goods within the CWC in general. The grave also had three amphorae, a, beaker, a jug (all decorated except one amphora), a bone awl, and a flint endscraper.

- **Vikletice grave 166/63** (Buchvaldek 1970: 44, 285): This grave contained a young adult individual (c. 20–30 years old) in the primary grave, which was disturbed (including the anatomical position) by the secondary burial of an older child or juvenile (6–18 years old), the few bones (teeth and leg bones) of the latter being mixed with the primary individual. Based on the grave goods, the adult is assumed to be of female gender while the child's gender is undetermined. Due to the disturbance, several grave goods were displaced, with fragments both at the bottom of the grave and in the grave fill. The grave goods comprised sherds of a beaker (bottom and fill), a small flint drill (among the bones), a fragmented flint blade (in the corner), 36 perforated dog teeth (incl. two fragments), 27 dogtooth imitations in bone (bottom and fill), a sheep/goat tooth, 110 perforated shell beads (bottom and fill), a fragment of a possible marble pendant (under the shell beads), and a bone awl (grave fill). Although the disturbance from the secondary child burial makes the attribution of all the grave goods to only one of the individuals uncertain, the grave goods present partly on the bottom (all but the bone awl) seem likely to be associated with the primary adult grave. No pathological remarks or trauma were reported for these two individuals in a later examination by Shbat et al. (2009).

- **Vikletice 67/64** (Buchvaldek 1970: 57, 268–269, 285): A young adult individual (20–30 years old and of undetermined sex), the body lying in a crouched position on its left side, oriented approximately East–West with the head towards the East, indicating female gender. Grave goods comprise part of an ornamented amphora, sherds of two or three jar-like vessels, 54 whole drilled dog canines (and 27 fragments), two drilled badger canines, three tooth imitations, and a drilled tooth of unknown species. The various teeth were lying in a small heap and in two rows behind the head near the right arm, and a

pointy flint blade was behind the head. No caries was detected in the teeth and no pathological remarks or trauma were reported for this individual in a later examination by Shbat et al. (2009).

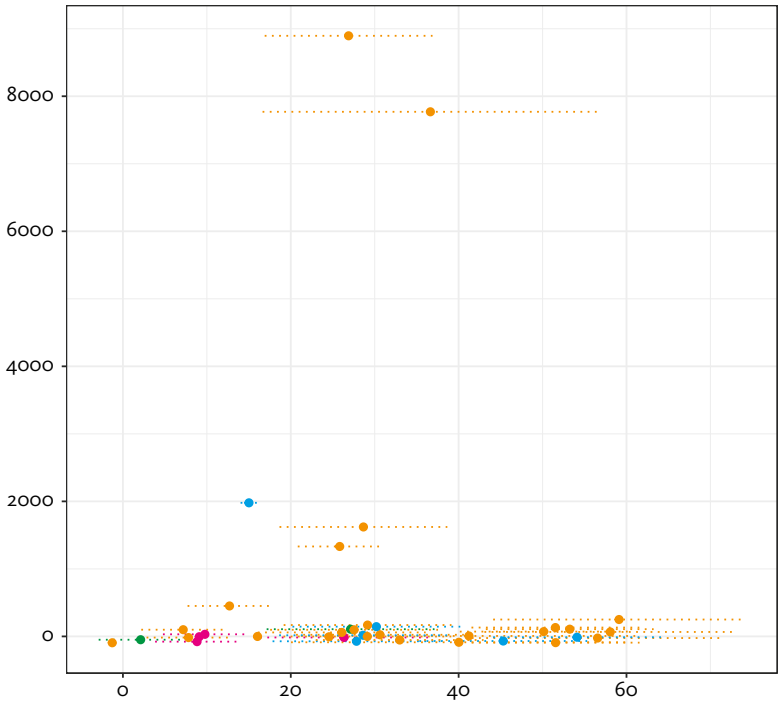
According to the medical examinations by Shbat et al. (2009), two other individuals buried with dogteeth from this dataset showed possible signs of various trauma and pathologies: **Vikletice gr. 12A/63**, a young adult female with signs of carcinoma or meningitis, buried with 36 tooth ornaments, of which 11 were from dogs and the rest from fox, otter, badger, and red deer; and **Vikletice gr. 140/63**, a mature female with possible signs of having survived an infection, buried with a dogtooth, three badger teeth, and seven tooth imitations.

The only clear pattern that appears from the 17 graves with dogteeth and/or shell beads in this study is that they are female (12 out of 17 graves, 70.5%) or sometimes with ambiguous sex/gender traits (3 out of 17 graves, 17.7%), and usually contain an adult (13 out of 17 graves, 76.5%). The two individuals from Bohemia described here had no signs of pathologies or trauma. A study on the teeth of some of the individuals in this Moravian sample, from Ivanovice na Hané and Hostice, indicated a high meat intake for some of them (Kolář et al. 2012). However, estimated differences in meat consumption in the Moravian CWC seem to be non-significant, and CWC and Bell Beaker individuals in Moravia and Bohemia seem to have generally more meat consumption (and perhaps also dairy, at least in Bohemia) than Early Neolithic groups (Kolář et al. 2012: 244–253, Shbat et al. 2009). Higher meat consumption for certain CWC individuals therefore is not a clear marker of exceptionally high status, but at least it shows access to meat, indicating that they are probably not from the lowest tier of their society.

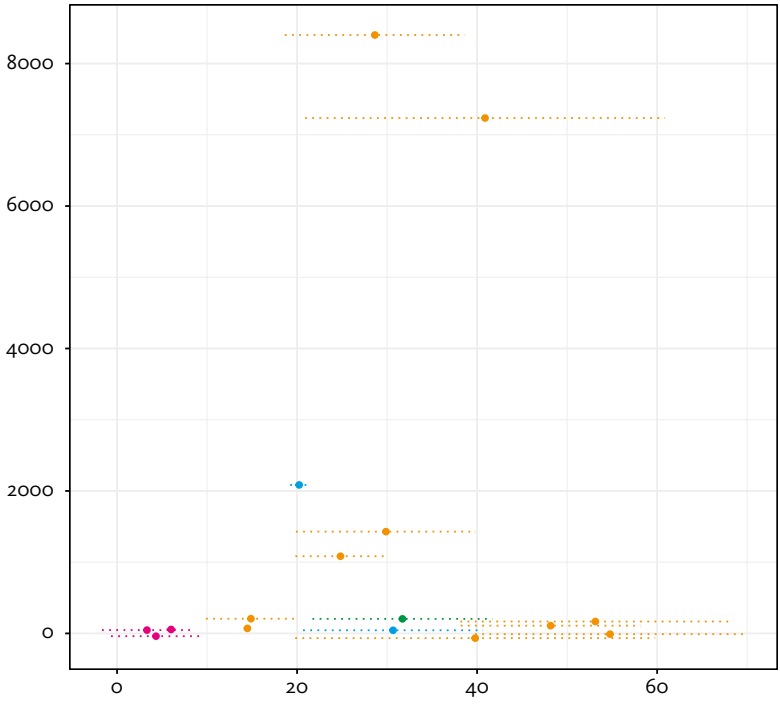
4 Tooth and shell ornaments in the Czech Corded Ware culture

Kyselý et al. (2019) generously provide open data for 72 sex-/gender-determined individuals,[42] of which 37 were also age-determined, buried with osseous ornaments (a collective term for ornaments of tooth, shell, bone, antler, and horn), from all of the Czech CWC. The overall frequency of these ornaments is quite low for children and the oldest individuals, but also low for the few males that

42 Some of them also have osteological sex determinations. The six cases where these do not correlate with the gender determination (from body position) are given the label *ambiguous*.



5a All osseous ornaments.

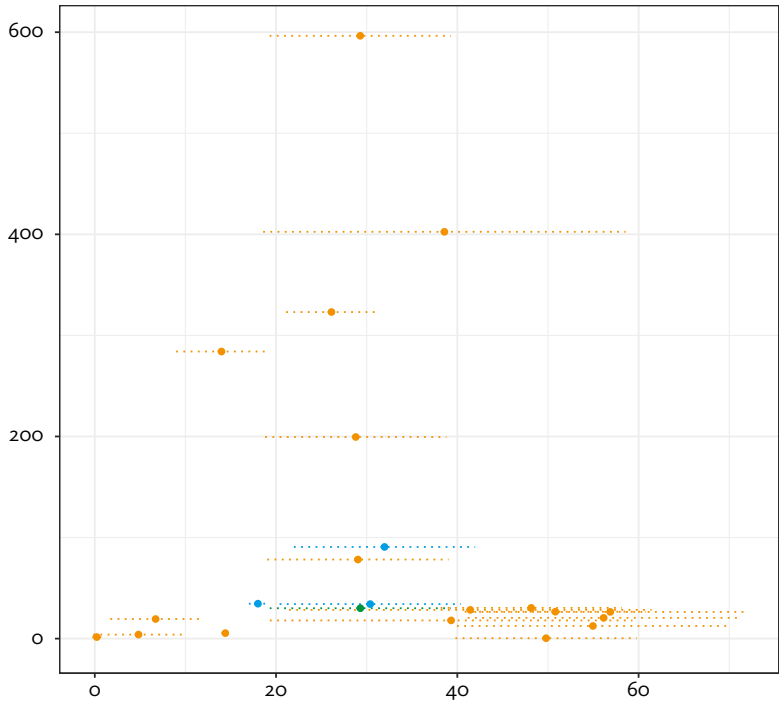


5b Shell beads.

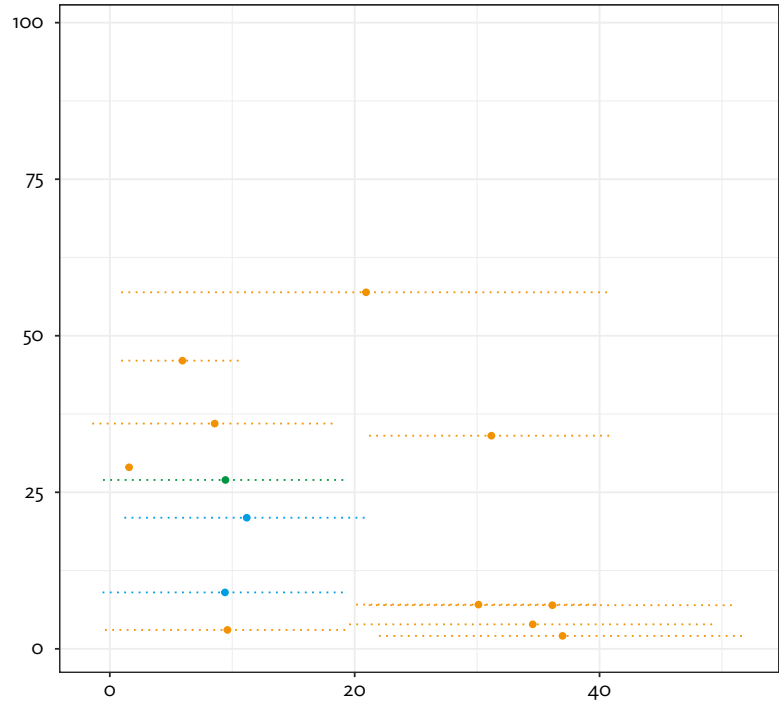
FIGURE 5. Individual age ranges and frequency of tooth and shell ornaments in Czech CWC graves, coloured by archaeological gender (based on body position).
Individual ages on the *x*-axes and number of items on the *y*-axes. Points have been 'jittered' to prevent too much overlap. Data from Kyselý et al. (2019).

Gender (based on position)

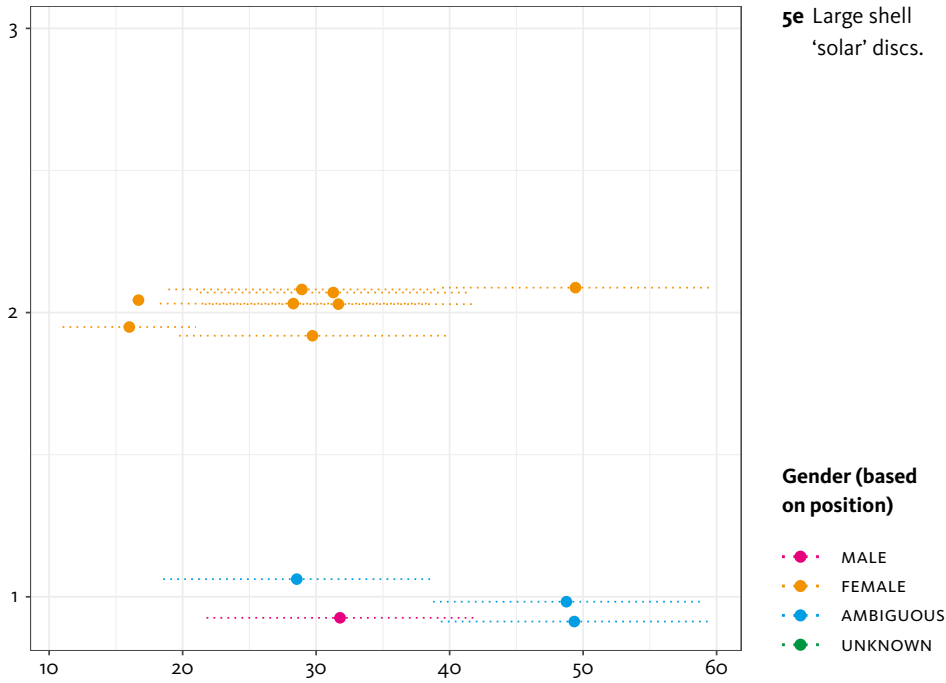
MALE
FEMALE
AMBIGUOUS
UNKNOWN



5c Drilled teeth.



5d Dogtooth imitations in bone



5e Large shell 'solar' discs.

have them at all. Two extreme outliers (the above-mentioned Marefy gr. 177.1.1 in Moravia and Prague–Březiněves gr. 10 in Bohemia) soar high above the rest, while an intermediate group with almost 2,500 pieces also stands out (Figure 5a). It thus appears that osseous ornaments for females are mostly worn by, or associated with, individuals in the fertile age. Focusing only on shell beads, the picture becomes even clearer: for males, they are only associated with children less than 10 years old (Figure 5b), and otherwise resemble the general plot. Prague–Březiněves gr. 10 (described by Kyselý et al. 2019) is, in terms of shell beads and dogteeth, the closest comparison to the extremely rich grave in Moravia. Prague–Brezineves gr. 10 is female according to both osteology and body position, and osteologically and typologically dated to the mid-late CWC (find group II–III). It contained at least 412 tooth ornaments (at least 249 drilled) determined to be from 73 dogs, 8,387(!) shell beads (mother-of-pearl), 2 shell discs, fragments of a beaker, an amphora and another undetermined vessel, a flint artefact, and a whetstone (Kyselý et al. 2019).

Interestingly, when looking at another ornament type made from larger disc-shaped shells, often decorated with small pits in a 'sun cross' shape, it seems that

these may be more prominent with non-adults than the other grave goods (although only two examples here; see Figure 5e). They are also found with a few adult males, but those with 'solar' decoration are only found with females (Kyselý et al. 2019: 116). In general, the occurrence of these 'solar' discs is negatively correlated with dogteeth and dogtooth imitations, perhaps hinting at a different function (Kyselý et al. 2019: 106).

Dogtooth imitations were found, and counted, in 34 graves in Kyselý et al. (2019); of these, 18 graves (53%) were from the middle CWC period (if consistent with Find Group II), while only four graves (12%) can be dated to the late CWC (if consistent with Find Group III). The rest are either undated (11 graves) or middle–late CWC (1 grave). Imitations in the middle CWC are primarily found in northwestern Bohemia, and the use of real dogteeth becomes even rarer in the late CWC (Kyselý et al. 2019: 107, 114–116). However, it should be noted that deriving CWC chronology from Find Groups (I, II and III), although often supported by C14 dates, relies on typology, and some temporal overlap is to be expected (Neustupný 2013: 132).

Animal teeth are found in c. 6.7% of all Bohemian and 0.3% of Moravian CWC graves, or 5.3% of all Czech CWC graves (Kyselý et al. 2019: 108); out of the total of 3,719 teeth, 91–95% are dog teeth. Drilled teeth of wild animals are also represented in this dataset, including wolf (4.5%), fox (10%), badger (14.8%), otter (5.6%), wild cat (8%), bear (1%), marten-like species (1%), and domestic pig (4.5%) (percentages based on table 5 in Kyselý et al. 2019). Out of 88 graves with animal teeth, 87 (98.9%) contained dogteeth (Kyselý et al. 2019: 108).

As seen in Figure 5c, drilled teeth are primarily found with females: of the 39 sex-/gender-determined single graves with drilled teeth, 34 were female (87%), two were male (5%, not shown in the plot since age was not given in the data), and three were ambiguous (8%). Additionally, drilled teeth were found in four double graves (three with a male and a female, one with two females) and 30 graves with an unspecified number of individuals. Of the 34 female single graves, 18 (53%) had age determination (13 adults and five non-adults), of which six (33%) were older individuals (40+) and four (22%) were younger adults (20–39)while three (17%) may have been either older or younger adults (20-59). The five non-adults represent altogether 28% of the graves; three (17%) were infants and two (11%) were juveniles (Kyselý et al. 2019: Supplementary Table).

Individuals with tooth imitations were age-determined in 13 cases, all adults. None of them were determined to be male; ten were female, two had ambiguous sex/gender display, and one was undetermined. The highest frequencies were generally found among young adults 20–39 years old (Figure 5d).

Shell beads are found primarily with females from 10 years old (Figure 5b). The grave from Marefy 177.1.1, Moravia, soars above the rest in drilled teeth, followed by other extreme examples in Bohemia: Prague–Březiněves gr. 10, Konobrže gr. 35 (2,000 shell beads, 27 drilled teeth, juvenile with ambigious sex/gender), Konobrže gr. 37 (1,000 shell beads, 325 drilled teeth, adult female), Prague–Čimice gr. 77 (1,435 shell beads, 200 drilled teeth, female (position) adult), Prague–Bubeneč gr. 72 (1,200 shell beads, 151 drilled teeth, female (position), unknown age), Sulejovice gr. 96 (1,000 shell beads, 50 drilled teeth, female (position), unknown age) (Kyselý et al. 2019: Supplementary Table).

All in all, the larger dataset from the Czech Republic in Kyselý et al. (2019) shows similar patterns to the more detailed subset of the data compiled by the author. Also, child graves do not have both shell beads and drilled teeth while some adults do have both (Kyselý et al. 2019: 106, 108).

5 Dogtooth ornaments in a broader Corded Ware scope

Petzold (2019), a large study on East-Central German CWC drilled teeth from at least 79 graves, shows that out of 17 dogtooth-bearing graves with anthropological determination, 76.5% (13 graves) contain females, that 60% (10 graves) are adults and 30% (5 graves) subadults (Petzold 2005: 4, 5). Again, these are comparable to the Czech CWC data. Both Kyselý et al. (2019: 93) and Petzold (2005: 4) state that most of the dogteeth were from relatively young dogs, contrasting the predominantly older dogs found at Brown & Anthony's Krasnosamarskoe.

In Oechlitz, Saale, Sachsen-Anhalt, dogtooth ornaments (mostly canines and incisors) are reported by Menke et al. (2017) in 11 graves (in ten graves also with shell beads, and with amber beads in four graves) out of a total of 158 CWC graves (dogteeth thus found in 7% of the graves), all of them lying in typically female (left-crouched) body position. Most of them were anthropologically female adults under the age of 40 (but mature individuals were also well-represented), except for one male (still left-crouched). Two of the adults were together with a non-adult, and in one instance only a non-adult was found. The number of dogs represented by the teeth in each grave at Oechlitz range from 6 to 18 minimum numbers of individuals, and the teeth were mostly lying in front of the individual, sometimes in rows, though other positions similar to those in the Czech data are known as well. Some found behind the head with shell beads were interpreted as a possible shawl or back veil–like adornment and compared to similar veils with various inbraided shells, flowers, glass beads, metal plates, grain straws,

and cloth strips worn by girls in the child-bearing age in 17–19th-century Northeastern Bulgarian societies. In other graves the placement indicated bracelets or arm rings.

Grave 20055 with a stone slab construction contained a young adult in female body position buried with dogtooth ornaments, fox canines, a copper arm ring, amber beads, and a flint blade, and with a 2–3-year-old child. Some of the dogteeth (canines) may have formed a necklace, and some may have been a shroud for the child (Menke et al. 2017). Menke et al. (2017: 277–278) mention ethnographic parallels in the Solomon Islands where headbands made of shells and dog- or dolphin teeth are used as currency, and even as dowry, which may be relevant for interpreting CWC shells and animal teeth.

We also find a few graves with dogtooth ornaments between Tauber and Steigwald in South-Central Germany, e.g., in Hopferstadt gr. 12 (56 teeth), Geißlingen gr. 1012 (144 teeth and imitations), and Possenheim gr. 10005 (at least 72 teeth from dogs, pigs, and a small ruminant), all three containing adult females (Schussmann 2016: 81–84).

Shell beads and animal tooth ornaments are also found in the CWC of the Little Poland Upland (all from period III, c. 2550–2200 BCE, Włodarczak 2006: 126), judging from the data from 220 CWC graves in Włodarczak (2006: 39, tables 29 and 40). However, the sex/gender pattern for these is different from the other CWC regions mentioned here, and their ornaments are fewer in number. Animal (mostly dog/wolf) tooth ornaments are found, only in single specimens, in four graves (1.8% of the 220 graves):[43] two males (three if including arrowheads as a male emblem) and one undetermined child. Shell beads in this region of Poland are found in 6 graves (2.7%, with a maximum of only 10 shell beads in one grave),[44] also mostly with males or undetermined children, one together with a female. So in the later CWC of Little Poland, the data does not seem to contradict the male association of dogs and males following the model by Brown & Anthony (2017; 2019) and Kristiansen et al. (2017), although especially dogteeth are very few in number, but the late CWC date still speaks against these dogteeth as reflecting male dog–warrior bands in the formation of the early CWC, while the early CWC dog burial does not.

43 Książnice gr. 2, Książnice Wielkie gr. 3, Malice Kościelne gr. 14A, and Złota–Nad Wawrem gr. 90 (Włodarczak 2006: table 40).

44 Kazimierza Mała gr. 79, Książnice Wielkie gr. 6 and 11, Malice Kościelne 14A (incl. tooth ornaments), Mierzanowice, st. 1 gr. 129, Żerniki Górne gr. 85 (Włodarczak 2006: table 40).

In the Fatyanovo culture, shell and animal tooth ornaments, including bear teeth (perhaps from their connection with the Volosovo culture), are found primarily in female graves. Although species other than bear are not reported, some of them seem smaller and could resemble dog canines (Nordqvist and Heyd 2020: 8, 13, 15).

Animal tooth and shell ornaments are not exclusive to the CWC or the Eneolithic in general, but they may have conveyed different meanings in different periods. They are also known in the Mesolithic and Palaeolithic, often in female graves, sometimes with children. Petersen (2016) has proposed the interesting hypothesis that the Mesolithic and Palaeolithic examples functioned as protective amulets, especially when found with an adult female (presumably mother) and a child. He also suggests that when these shell and tooth beads lie beside the head and/or shoulders, instead of under the head (previously assumed to be part of a kind of pillow), they may have been protective decoration on a papoose or a 'carrying strap'.

Indeed, in some female CWC graves these dogteeth and/or shell beads have a similar placement. However, in a few cases, the placement was described and analysed more thoroughly. In Prague–Březiněves gr. 10, the dog canines found behind the head of the deceased were interpreted as having adorned a cap, hood, or headdress. Dog canines and incisors (all perforated at the root) primarily lay in eight rows in the neck and chest area of the deceased and were interpreted as a complex necklace, or perhaps rather sewn directly on to the clothing or to a shroud. Canines, especially incisors (particularly *incisivus 3 superior*, the largest incisor) were over-represented and cheek teeth under-represented compared to anatomical ratios in living dogs, meaning their appearance in the grave were the product of human selection for specific dogteeth, likely resulting from gradual collection. The shell beads lay spread over the torso, with the highest concentration, seemingly in short rows around the pelvis, probably reflecting the original pattern of shell beads or perhaps a special shell-adorned clothing item (Kyselý et al. 2019: 90–94), so here probably not a carrying strap either.

A similar example can be found in Karsdorf, Saxo Anhalt, gr. 59/59, one of the most furnished of the C14-dated CWC graves, and also the oldest (c. 2750 cal BCE, see Behnke 2015). The grave, which contains an adult female with a child placed in the corner, is positioned centrally among the old graves in the cemetery and is suggested to represent the 'founder generation' at the site (Behnke 2015: 166, 172). During the excavation of the grave, the concentration of many hundreds of beads was interpreted as a form of 'backpack' or 'carrying strap', but subsequent analysis of the arrangement patterns of the shell and tooth beads (which had both

clustered and more scattered areas in the grave) has suggested that it was rather a shell-decorated woven fabric or leather cover or wrapping for the deceased female (Behnke 2015: 128–133). An individual child's grave was also found at Karsdorf in the corner of the cemetery, male judging from the body position, with 111 shell beads (perhaps from a belt) and other grave goods such as flint and ceramics, but no dogteeth. This grave was less furnished than grave 59/59 (Behnke 2005 and 2015: 133).

Petersen's idea of the papoose or 'carrying strap' (in the Mesolithic and Palaeolithic material) applies mostly to graves with a woman and child, especially when the child is very close to the female. This is often not the case for the Corded Ware examples, where they are primarily found in individual graves of either an adult or a child. Only three out of 37 graves with age group determination in the Czech CWC dataset from Kyselý et al. (2019) had both one or more adults and a child. In the case at Karsdorf, the child is in the corner of the grave pit, with only some parts of the legs being covered by the shell beads (Behnke 2015: 130), and the shell beads may thus rather be associated with the adult female.

Petersen (2016) also suggests that in the Mesolithic and Palaeolithic examples, the shell beads were probably not prestige objects, but that their primary function was to protect the child from evil, and that the women or children wearing them may have been handicapped, sick, or mentally ill. However, I see no reason why the protective and prestige functions should be mutually exclusive (no evidence for the individuals being handicapped, sick, or mentally ill is given by Petersen).[45] A papoose-like wearable, while functioning as a magic protection, could also be an ideal way for mothers to show their wealth and status to others, especially when wearing large amounts of shell beads.

Occasionally, as in the richly furnished Marefy 177.1.1 grave, and in Oechlitz, Central Germany, shell beads are found with copper or amber ornaments, which we would expect to be prestigious objects as well. However, if dogteeth and shell beads were only fashion items, the local availability of the source material would make them relatively easy for anyone to wear. Instead, they are still quite rare – dogteeth are only found in nine out of 299 graves (3%) in the Bohemian sample, and one out of 81 graves (1%) in the Moravian sample – so it may have been a cultural restriction, rather than scarcity or the distance of import of the material, which determined who was buried with them.

45 It should be noted that Petersen does not mention the Corded Ware examples, so this is merely a discussion of whether to apply his ideas from the Palaeolithic and Mesolithic material to the CWC cases.

FIGURE 6. Map of graves with dogtooth ornaments mentioned in the text. CWC (red), Baden and Globular Amphora cultures (green), and other Eneolithic–Early Bronze Age graves (black). Colored circular areas (cf. colors for the dots) indicate regions with unmapped graves with dogteeth mentioned by other authors. Unnamed sites in Bohemia and Central Germany are mapped after Kyselý et al. (2019) and Paust and Knechtel (2015). Map: Mikkel Nørtoft.

Whether this indicates a specialised ritual function or some other heterarchic function for select females with dogteeth is unclear. While the teeth are suggested to have been collected over a long period of time for at least 12 graves with more than 100 dogteeth in the Czech data in Kyselý et al. (2019), their use-wear varies. Some look only slightly worn, suggesting that they were either relatively new or only worn on special occasions, while others show more wear or even repair, suggesting long-time use or perhaps being in circulation over several decades (Menke et al. 2017: 278). Overall their position in graves varies considerably, some positions suggesting that they were decorative parts of hats, hoods, headdresses, pouches, or bags, or that they formed necklaces and wrist or ankle jewellery. In cases where they were more scattered in the grave or in longer rows, they perhaps adorned burial shrouds, blankets, coats, or other clothing with stripes of dogteeth, sometimes in combination with shell beads (Kyselý et al. 2019: 126).

6 Dogteeth and shell beads in cultures neighbouring the Corded Ware culture

Shell beads are also found in Pontic–Caspian steppe societies, and may even be portrayed on a Yamna anthropomorphic stone stela from Utkonosovka north of the Danube delta, interpreted as depicting a female (Mallory 1989: 220). However, for the discussion of the connection between dogs and gender in steppe societies, the focus here will be dogtooth ornaments.

Perforated dogteeth (17 pieces) have been found in the CWC-contemporary Globular Amphora culture at Tangermünde and Frohndorf, both in Mittelelbe-Saale, Germany, although their demographic context is not given (Beier 1988: 39, 155).

Anthony (2007: 362, 364–365) refers to dogtooth pendants/beads in some Yamna graves, especially around the Ingul and South Bug valleys in Ukraine and in Eastern Hungary, in the context of Indo-European warrior bands and their presumed belts. He does not mention sex, gender, or age determination for these graves, but suggests a connection between dogteeth and belts as male warrior symbols because anthropomorphic Yamna stone stelae often have belts carved into them in the same area as dogteeth in graves – although images of dogteeth have not, to my knowledge, been found on the stelae.

In the Usatove culture near Odessa, at the site of Usatove, kurgan cemetery II, kurgan 2, grave 1, an individual was buried with a necklace of 47 teeth from dogs or wolves, lying on its left side with head towards east, a position typical for females (Dergachev et al. 1991: 111–112, Razumov 2018). Again, I could not find any reference to the sex and age of this individual.

On the Lower Dnipro in the Nikopol region near the village Pokrovske at the 'Storozhevaya Mogila' kurgan group, kurgan 2 had ten Yamna burials (and two from the Catacomb period), one of which (grave 6, 12 m from the centre of the 30 m wide mound) was a child of unknown gender or sex, buried with sheep/goat bones, various bone items, and drilled dog canines (Chernykh et al. 2014: 14–16).

Frînculeasa et al. (2020: 11, with references) give a brief overview of dogtooth ornaments in the 3rd millennium BCE from Hungary (at least sometimes with non-adults), Romanian Yamna (mostly with non-adults), Armenia (Kura Araxes culture), as well as in burial mounds from north of the Caucasus, Ukraine, Bulgaria, and Baden culture graves in Central Europe. Investigating the demographic context for all these examples is beyond the scope of this paper. However, in Șoimești, Romania, the dogtooth ornaments (molars from four different dogs), fox teeth (canines), and *Unio* shell beads, were found with a woman, probably of

high status (Frînculeasa et al. 2020). At Târgşoru Vechi gr. 10 in Prahova, Romania, seven perforated dog and fox canines are found with a four-year-old, and at Glăvăneştii Vechi gr. 17, a two-year-old had a perforated animal molar (Frînculeasa et al. 2019).

Dogtooth necklaces have also been found in graves of the Baden culture in Austria (Leobersdorf gr. 1) and Hungary (Mezőcsát–Hörcsögös gr. 7) (Sachße 2010: II 56–57, 65). In a Hungarian Baden culture cemetery at Balatonlelle-Rádpuszta site 67/5, grave 367, a 35–45-year-old woman (also genetically female), C14-dated to 3508–3429 cal BCE, was buried with 16 drilled dog canines (from at least six dogs, and probably more based on variation in sizes) and no other grave goods. Her head rested on a fragmented child's skull (1–7 years old) of undetermined sex, seemingly unrelated to her, although the DNA was poorly preserved, and it is uncertain if they were buried simultaneously. Use-wear analysis showed that the dogteeth had been worn for a long time. Most of the teeth were found at her leg (Gál and Bondár 2022).

Zidarov (2020) mentions 117 finds of dogtooth ornaments from 30 different sites throughout the 3rd millennium BCE in western Yamna and the subsequent Catacomb culture (especially in eastern Ukraine), in Hungary (Kétegyháza), Thrace, Macedonia, as well as in the Early Bronze Age Aegean and in western Anatolia (e.g., Troy I). Usually, the dogtooth pendants or necklaces are found in settlements or house floors, but three grave finds are known in Bulgaria: a Bereketska flat grave, a Goran–Slatina tumulus grave (neither of them sex or age-determined), and a Yamna primary tumulus grave from Mednikarovo–Iskritsa. The latter individual, a 14-year-old female, was buried with 2 dogtooth pendants and 14 silver beads (Panayotov et al. 1995: 95, Zidarov 2020: table 1), thus again, based on the silver, seemingly a high-status female, this time adolescent. For a map of all graves with dogteeth in this study from the late 4th to the 3rd millennium BCE, see Figure 6.

Many of these references to dogtooth ornaments do not mention sex or archaeological gender determination of the buried individuals, and sometimes not age either. Some are non-adults, which makes it difficult to determine sex without DNA analysis. Thus, we rarely get more insight regarding the association with males, or lack thereof, of these dogtooth ornaments.

As seen above, CWC dog (and some wolf) tooth pendants are rather found with adult females along with shell beads (and rarely with young males), primarily in Bohemia and Central Germany (7–11% of all graves), but also more sporadically in Moravia, Bavaria and other German regions, Western Slovakia, and Poland (Kyselý et al. 2019: 121).

The practice of wearing dogteeth seems to have persisted in some areas after the Corded Ware period. Gál & Bondár (2022) give an overview of dogtooth (primarily drilled canine) ornaments from settlements and graves of the Bronze Age (Maros, Vatya, Encrusted Pottery, Gáta, and Perjámos/Maros cultures), and in the cases where sex or gender has been determined, the individual is female: at Hódmezővásárhely–Kopáncs (Perjámos/Maros culture, c. 2300–1500 BCE), we find a 16- to 18-year-old girl with "a lavish array of jewellery" comprising canines and incisors of dog, fox, wolf, and cattle, as well as marine shells, faience beads, bronze spiral tubes, and bronze studs, possibly attached to garments or a headdress (Gál & Bondár 2022: 52); and at the Oroszvár cemetery (Gáta culture, c. 2200–1500 BCE), we find dog canines on a woman together with bronze spiral beads, and shell beads (*Dentalium* species). According to Gál & Bondár (2022, with references), these dog canines symbolised rank and status early on, and during the probably more socially stratified Bronze Age, they symbolised wealth and power.

At the Early Bronze Age Mokrin necropolis in northern Serbia, a female child grave (gr. 55) was found with a handled beaker and a necklace with three perforated canine dogteeth, two cylindrical bone beads, and 12 greenish kaolin beads (Lazaridis et al. 2022: Supplementary information 176–177). We also find dogtooth ornaments in the Únětice culture in the early 2nd millennium BCE, such as the cemetery at Mikulovice, and in the Maďarovce culture in Slovakia (Zidarov 2020, Kyselý et al. 2019: 121–123).

Further, we find the combination of dogteeth and mother-of-pearl beads in Græse, Zealand, Denmark, in a Late Neolithic (2350–1700 BCE) grave of a physically "robust" female (Kjær 1910).[46]

7 Conclusion

This section has critically examined the evidence for a proposed hypothesis of a male wolf/warrior in connection with steppe migrations in the early 3rd millennium BCE.

From a detailed subset of Czech Corded Ware culture graves, it has been shown that perforated dogteeth (sometimes in very high numbers) and shell beads appear in the upper half of a grave-good wealth scale (TOT) which is based on the presence of different types of grave goods – higher, in fact, than items like battle-axes, a traditionally suggested elite male sodality symbol. In this sample

46 I would like to thank Jens Winther Johannsen for this information.

data, dogteeth and shell beads are mostly found with adult females, and only very rarely with males. Dogteeth are also found in fewer graves than battle-axes, suggesting that they may have been a stronger status marker (especially when found in high numbers), despite the fact that both dogteeth and shell beads (mother-of-pearl) were locally available materials. However, when found in low numbers in child graves, they could also have functioned as protective or guiding amulets in life or in the afterlife.

A wider overview of dogtooth ornaments and shell beads (especially from mother-of-pearl), while not exhaustive, shows that these ornaments were clearly associated with females in the Corded Ware culture (CWC) in general, as also concluded by Kyselý et al. (2019), except in the few cases from the Little Poland Upland. While they are also found in steppe societies, their association there with gender, age, and status remains unclear until a proper bioarchaeological study is done on the individuals in these graves. If the CWC is to be seen as reflecting an early (Core) Indo-European–speaking culture, it does not seem to reflect the male dog/wolf youth warrior institution or initiation that Brown & Anthony (2019) propose and cannot be connected with the early CWC as Anthony (2022) and Kristiansen et al. (2017) propose. Instead, the CWC dogtooth ornaments (except in the few graves in the Little Poland Upland) seem to be primarily female status items culturally restricted to relatively few females. However, in most CWC cases, they appear only in the middle-late CWC, and in Poland where the few examples seem to be in male graves, they appear in Find Group III, i.e., probably later CWC, which does not fit the early CWC scout phase mentioned by Anthony (2022: 7, 13, 15–16). There may still be a case for the male dog-warrior model in the CWC if dog graves can be demonstrated to be primarily found with males in the 'age of initiation' or older. While there may be a pattern of more males (including one early grave in Poland) than females buried with dogs in the CWC (currently 4 males to 1 female), the sample size is still far too small to be significant. Also, the cases found here are mostly adults, and CWC sites with extensive dog sacrifice comparable to Krasnosamarskoe or Mayaki are not known. In any case, a scouting phase model with young males penetrating through Europe before the larger steppe migrations still seems plausible without wolf or dog associations since the earliest phases of the CWC do have primarily male burials, and steppe-related migrations, especially relating to the CWC and Yamna, have been shown genetically to often be male-driven, though there are some regional exceptions to this pattern where females seem to have played an equal role (cf. Juras et al. 2018 for the eastern CWC, and Patterson et al. 2022 for the Late Bronze Age migrations to The British Isles associated with the spread of Celtic languages). The Yamna

phenomenon (at least North Pontic 'Core Yamna') is increasingly seen as a form of male sodality, in part due to having mostly male burials, but also due to their very narrow Y-haplogroup range (almost exclusively R1b-Z2103 so far) and very homogeneous autosomal DNA, and perhaps did not represent a society, but rather a select male elite or clan (Anthony et al. 2022: 4, Lazaridis et al. 2024).

The question remains why dogtooth and shell ornaments were seemingly culturally restricted to so few individuals despite their locally available materials – were they perhaps a kind of social marker, meant for protection, or (judging from their concentration in the upper half of the TOT scale) indicative of their owners' prestigious function in society, such as female shamans, midwives, or healers with a certain status? In the cases of children with only a few dogteeth, they could perhaps reflect protective amulets, and in the case of individuals with many dogteeth (especially adults), they could perhaps reflect a ritual function or a special status. Kyselý et al. (2019) make a comparison between the CWC dogteeth and the much later Greek goddess Hekate, who had functions related to transitions between life and death and was often shown accompanied by dogs, suggesting that dogs were seen as guardians of, or guides ('psychopomps') in, the afterlife. If presuming a shamanistic function, it is possible that some children with dogteeth and shell beads had been singled out to follow a path as shamans. A proper bioarchaeological investigation into the health and lifestyle of these children (and the adults) compared with the rest of their society could perhaps illuminate this further.

If CWC shells and animal teeth were used as currency and as part of the dowry, and assuming Testart is correct that when bridewealth and dowry coexist, dowry is mostly paid in the upper tiers of society, this is perhaps an independent indication that these CWC females were from richer families. However, we would probably not expect the dowry to go in the grave if the individual's daughter(s) had been married. So under this logic, the dowry would only go into the grave if the buried woman did not have living daughters to pass on her dowry (or rather, her trousseau/*strīdhana*) to. This specific situation could perhaps also explain why these graves are not the norm in the CWC, and are almost only found with females. The geographical concentration of these ornaments would suggest that this form of dowry was most prevalent in Bohemia and Central Germany and may have become less common after the CWC, perhaps already fading in the later phase of the CWC. The larger dogtooth and shell bead assemblages in a few child graves (although not comparable to the richer adults) could perhaps indicate that such a dowry was accumulated over time from the time of birth of a child in some families. It must be noted that no single explanation fits all the data – all these

interpretations require a lot of assumptions and speculation and should be taken with the utmost caution.

Regarding the male dog-warrior model by Brown & Anthony and Kristiansen et al., it is also possible that young male warrior institutions became associated with dogs only after the CWC period. It could perhaps have spread with chariots and horseback riding across the Indo-European–speaking world from around 2000 BCE, connected with the Sintashta, Andronovo and Srubnaya cultures (Librado et al. 2021). This would also be closer to the date of Brown & Anthony's Late Bronze Age Krasnosamarskoe dog sacrifice site (c. 1900–1700 BCE), if that really reflects male dog-warrior initiations. If this was the case, the similar historical and mythological accounts about young male dog-warrior institutions summarized by Kershaw (2000), among others, might reflect a cultural, rather than demic, diffusion of the association between male warriors and dogs/wolves during the 2nd millennium BCE, with new, intensified long-distance trading and marriage networks between elites. Such networks – resulting in some of the widely shared Bronze Age social and religious institutions, large-scale wool production, spoke-wheeled chariots, and mythologically loaded figurative iconography – were previously suggested by Kristiansen & Larsson (2005: 364), Kaul (2015), and Iversen (2014; 2024). These seem to better fit many elements in the Indo-European world view from comparative mythology and vocabulary (Iversen 2024), perhaps including dog-warriors.

Alternatively, young male dog-warriors may have been present as an institution already in the CWC, leaving almost no archaeological trace (except perhaps in Little Poland, and the four dog burials with males) because they were hidden or marginal groups in a temporary phase of their lives. While this cannot be excluded, it does seem a somewhat *ad hoc* solution, unless bioarchaeological investigations can establish a predominance of male (human) individuals in connection with dog burials or sacrifices.

To explain the predominantly male sex of 72 sampled dog genomes around Eurasia from the Neolithic and Bronze Age we may consider the possibly very old dog-as-guardian function. If guard dogs in life were predominantly male, it could be that afterlife guard dogs (such as Greek Kerberos, Indic Śarvara, and Old Norse Garmr), were also perceived as typically male.[47]

47 In a quick, but non-exhaustive, survey in etymological dictionaries (Mayrhofer 1986, 1992, and 1997, De Vries 1957, Beekes 2010, Matasović 2009, and Derksen 2015), the words/names relating to 'dog of the underworld, dog demon, guardian' in Greek, Indo-Iranian, Celtic, Germanic, and Baltic were all, at least grammatically, masculine: Germanic *Garmr,* Greek Κέρβερος, Young Avestan *vítūla-*, and several masculine names in Sanskrit: *kūrkurá-, sīsara, téka-, balā-bandhaná-,* and *mandākaka-*. Only one word

This study does not completely 'debunk' the male dog/wolf warrior hypothesis associated with the formation and spread of the CWC. However, it raises some serious problems with its archaeological evidence, and tentatively suggests that its Indo-European mythological evidence may rather belong with a larger array of ideas spreading across Western Eurasia from the 2nd millennium BCE onwards, which calls for further investigations.

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in Sanskrit, *dúlā-* 'the swaying one, name for the mother of a dog demon' was female. Since the word refers to a mother, its female grammatical gender seems natural. However, when relating to young dogs/puppies, and in non-underworld contexts, the dogs are sometimes female or neuter (but still also some male).

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In-laws and outlaws in Indo-European societies

The master of the house and his circles of interest

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The spread of the Indo-European way of life in terms of language and institutions is intimately connected with the capacity of Indo-European–speaking populations to establish alliances with their neighbours, thereby gradually extending their circles of social and military influence. The strategies employed include exogamous marriages, fosterage, patronage and guest-friendship. This article investigates the vocabulary of some of these institutions.

For anyone working with concepts such as 'Indo-European society' or 'Indo-European kinship terminology', it is necessary to define what exactly they mean by 'Indo-European' in the given context. Are they, as is often implicitly done, equalling 'Indo-European' with Proto-Indo-European, the common pre-stage of all Indo-European languages, or is 'Indo-European' simply used as a cover term for reconstructed stages and attested languages and/or cultures that can be traced back to the speakers of Proto-Indo-European? In the present article, I will use the cover term, though primarily dealing with the stage of 'Core Indo-European', here defined as the cladistic node following the separation of first Anatolian, secondly probably Tocharian.

As stated in Olsen (2020: 40), "… kinship terminology mirrors the needs and conventions of society, and obviously, it must make a difference whether we are dealing with the nomadic, pastoral societies of the Pontic–Caspian steppe around 3500 BC, now commonly if not universally identified as the Indo-European homeland, or the somewhat later predecessor of the European and Indo-Iranian populations. In both cases, the features of a patrilocal, patrilineal system are apparent … but with the development from a nomadic to a more sedentary lifestyle, we may suspect that it gradually became easier to establish more intimate alliances of intermarriage, fosterage and guest-friendships between the individual patriarchal households".

In this perspective, the problem is complex in so far as we have to reckon not only with successive stages of society mirrored by the Indo-European proto-language and its descendants, but also with the diverse non–Indo-European societies these populations must have met and interacted with in the course of their migrations to the west and the east. Thus, the essential question, "who are we talking about?" concerns Indo-European–speaking populations meeting either other Indo-European–speaking groups or one of the multitude of prehistoric indigenous societies that must have existed in Europe and West Asia.

To take an example, we may now have a basic understanding of the cultural meeting between the Corded Ware and Únětice cultures in Central Europe (cf., e.g., Kristiansen et al. 2017; Mittnik et al. 2017). Here everything points to a system of exogamy where the Únětice women were included in the patriclans of the Corded Ware culture, but since both cultures may be traced back to Indo-European–speaking populations from the Pontic–Caspian steppe, the differences in social structure may have been minimal. However, the conditions in other parts of Europe, e.g., Southern Europe or Britain, may well have been fundamentally different (cf. Booth et al. 2021), not to mention the populations met by the early Indo-Iranians.

For the indigenous inhabitants of Europe and Western Asia, our sources of information are largely provided by archaeologists and geneticists, while solid linguistic evidence is scarce. Most of the extinct non–Indo-European languages in the relevant areas are practically unknown, and at best, we may rely on the interpretation of substratum relics in Indo-European languages, as exemplified by Guus Kroonen's investigation of agricultural terminology (cf., e.g., Iversen & Kroonen 2017).

1 The Indo-European language family and social terminology

In order to sift the linguistic evidence of the Indo-European languages chronologically with any certainty, we have to know in which order the individual branches separated from the common mother tongue, Proto-Indo-European, and whether any of them formed intermediate proto-languages. Here again we are met with serious challenges.

There is general agreement among Indo-Europeanists that Anatolian was the first branch to separate from the rest of the language family, even if it may be debated how old and how fundamental the schism was. Most likely, Tocharian split off from the main group as the second member though the evidence for this

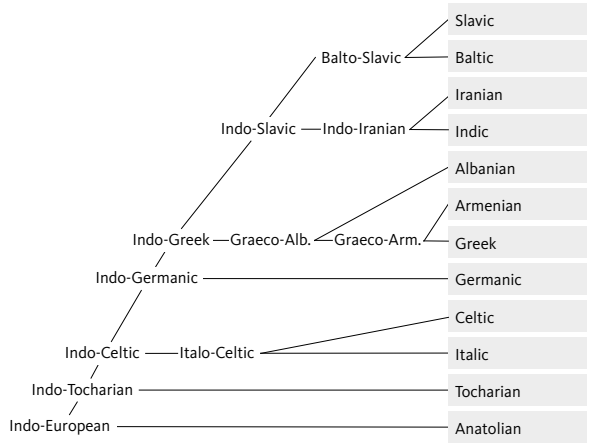

FIGURE 1. The Indo-European family tree according to Olander 2018.

is less certain. However, when we move further on in time and space, the details become more obscure. Figure 1 illustrates one attempt to provide a genealogical tree, but there is no guarantee that this is the final answer.

Two striking features characterize the social vocabulary of the Indo-European languages. First, we are in most cases dealing with transparent, phonologically regular inherited creations structured according to known morphological principles. Secondly, Anatolian shares very little of the common lexicon in this field, and for Tocharian, as far as we can see at present, almost only the most basic kinship terms for 'father', 'mother', 'brother', 'sister', 'son', 'daughter' and 'grandfather' have cognates in the other branches, though further research in the field may still uncover new details.[1]

In Anatolian, there are apparently no continuations of the otherwise ubiquitous words for 'father' (**ph₂tér-*), 'mother' (**máh₂ter-*), 'brother' (**bʰráh₂ter-*), 'sister' (**su̯ésor-*), and 'son' (**suhₓnú-* or **suhₓi̯ú-*). Instead, we find various hypocoristics, as is usual throughout the world's languages, e.g., Hittite *atta-* 'father', *anna-* 'mother'. The only basic kinship terms where Anatolian agrees with the other Indo-European languages include the word for 'daughter', Lycian *kbatra*, which has cognates in all other branches except Albanian, e.g., Vedic *duhitár-*, Greek θυγάτηρ, English *daughter*. To this we may add 'grandfather', Hittite *ḫuḫḫa-*, related to Tocharian *āwe*, Latin *avus*, ON *afi*, Armenian *haw*; and a hypocoristic word for 'child, son', **putlo-*, continued in Hittite ^{É}*pulla-* 'children's house', Vedic *putrá-*, Oscan acc. sg, **puklum** 'son'. Not even the basic root **ĝenh₁-* 'procreate',

1 Cf. the recent identification of Tocharian B *santse* (f) 'daughter-in-law' < **snusós* (= Greek νυός, Armenian *now*) by Peyrot & Xiaoqiang (2021).

known from numerous terms referring to the paternal lineage, is prominent in Anatolian.[2]

This again means that either Anatolian accidentally lost all of these terms, which rather seems like too much of a coincidence, or that they are the result of a common Core-Indo-European innovation as another indication of the fundamental "first split" between Anatolian and the other branches.[3] The precise status of Tocharian in this context is difficult to evaluate, but a detailed and precise kinship terminology is one of the features that unite the European branches and Indo-Iranian.[4]

2 Core-Indo-European family structure

The defining features of Core-Indo-European family structure are patrilineage, patrilocality and exogamy. Heritage in all senses of the word goes from father to son. The father is the procreator, the **ĝn̥h₁tḗr*/**ĝénh₁tōr*, even on the very highest level where Father Heaven is our common father and procreator/procreator and father – Vedic *pitā́ janitā́*, Avestan *ząθā ptā*, Greek γενέτωρ πατήρ, Latin *pater … genitor* (cf. Jackson 2017: 127–128).

The paternal line is essential, and if a family has the misfortune of not having any sons, all measures are taken to repair this flaw and restore the situation to normality. Thus, there are linguistic indications that at least Germanic, Greek and Indo-Iranian agree on the institution of 'heritage daughters' to fill in the gap until such a daughter would give birth to a legitimate heir from the patriclan, and the practice is also known from the Iranians, Armenians and southern Slavs.[5] The archaic Greek Gortyn Law Code even gives detailed instructions about which

2 Cf. Serangeli (2020) for a thorough treatment of the Anatolian material. The root **ĝenh₁-* is preserved in *genzu-* 'lap' and probably in *nekna-* 'son'.

3 Cf. Olsen (2020a: 43–46) for further discussion.

4 The literature on the subject is extensive, but let me just refer to Olsen (2020a) for a recent comprehensive treatment that may be consulted for supplementary discussion and references, Pinault (2007 and 2017) for original interpretations of the overall system, Szemerényi (1977) for an older, excessively etymologizing treatment, and the classic work by Delbrück (1889), whose basic observations still hold true. A recent substantial study of the subject from an anthropological point of view is Milanova (2021), and an interdisciplinary study of two Bell Beaker cemeteries including linguistic argumentation is provided by Sjögren et al. (2020).

5 Olsen (2020a: 91–93) with reference to Wackernagel (1953 [1916]: 6–9) and Scharfe (1964–1965: 266).

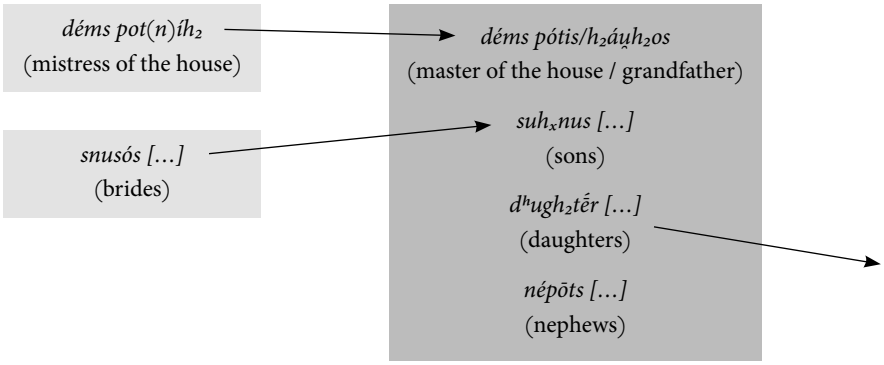

FIGURE 2. The Core-Indo-European patriclan.

member of her father's family should be prioritized in the marriage of such a heritage daughter (father's oldest brother, son of father's oldest brother, etc.) so as to secure the continuation of the lineage.

This seems to be the only situation where the strict principle of exogamy could be broken. Otherwise, wives were 'led into marriage' as indicated by the root *$h_2u̯edh_1$- (cf. Olsen 2020: 160), with the double meaning of 'lead, conduct' (Avestan *vāδaiieiti* 'leads', Old Irish *fedid* 'leads, carries, brings', Gothic *gawidan* 'connect') and 'marry', only used about the groom (Welsh *dyweddïo* 'betroth', Old English *weddian* 'marry', Old Prussian *wedd* 'marry', Lithuanian *vedù*, Latvian *vędu* 'lead; marry [of a man]'). Another well-known linguistic argument in favour of exogamy is the rich and very specific vocabulary for members of the husband's household that must be attributed to Core Indo-European, no matter how exactly these terms are analyzed. Thus, there are specific words for 'husband's brother', *$dah_2i̯u̯ḗr$ (attested in Italic, Germanic, Greek, Armenian, Balto-Slavic and Indo-Iranian),[6] 'husband's sister', *$ĝ̑lh_2u$- or the like (Italic, Greek, Armenian and Slavic),[7] and even 'husband's brother's wife', *$h_1i̯enh_2tḗr$ (Italic, Greek, Armenian, Indo-Iranian and Balto-Slavic).[8]

6 Szemerényi (1977: 87–88), Gamkrelidze & Ivanov (1995: 662), Mallory & Adams (1997: 84), Pinault (2017: 102–103). Cf. also Janda (2020) for a semantic-cultural analysis.

7 Szemerényi (1977: 88–91), Gamkrelidze & Ivanov (1995: 662), Mallory & Adams (1997: 521–522), Olsen (2020a: 134–136). Perhaps a word of foreign origin (the language of the brides?), cf. Bjørn (2017: 55) with references.

8 Gamkrelidze & Ivanov (1995: 662, Mallory & Adams (1997: 522), Pinault (2005), *NIL* 204–207, Olsen (2020a: 136–138).

These linguistic observations are meaningful if the young brides were taken from foreign communities and introduced into patrilocal households. Here they would be in daily contact with their husband's extended family, including his grown-up brothers with their wives and children and his young, still unmarried sisters. What is more, this general picture is now amply confirmed by archaeological and genetic data.[9]

3 The mother-in-law and father-in-law

The head of the Indo-European-speaking family was the **déms pótis*, the master of the house, his spouse the **déms pot(n)íh₂* (cf. Pinault 2017a: 337), and consequently this couple are the parents-in-law of the incoming bride. On the other hand, the groom also has parents-in-law, and while Core Indo-European has a well attested set of terms for 'mother-in-law' and 'father-in-law',[10] it is worth considering whether these terms refer to the parents of the husband, the wife, or both.

For 'mother-in-law', an **-uh₂*-stem **su̯eĥrúh₂s* is continued in Latin *socrus*, Welsh *chwegr*, Old High German *swigar*, Vedic *śvaśrū́ḥ*, Persian *χusrū* and Old Church Slavonic *svekry*. A thematic masculine **su̯éĥuros* referring to the father-in-law is the basis of Latin *socer*, Old High German *swehur*, Greek ἑκυρός, Albanian *vjehërr*, Vedic *śváśura-*, Avestan *xᵛasura-*, and Lithuanian *šẽšuras*; and of the motion feminine **su̯eĥuráh₂-*, referring again to the mother-in-law, continued in Armenian *skesowr* (distant assimilation for **kʿesowr*), Greek ἑκυρά, -η, and Albanian *vjeh(ë)rrë*.

Most often, it is taken for granted that the original meaning was 'husband's parents',[11] but this is more out of a preconceived idea that the husband's family is of primary importance than based on actual evidence. It is true that the pair is only used about the husband's parents in Greek, Armenian and Balto-Slavic, i.e., the central-east, but not easternmost part of the Core-Indo-European area.

9 Cf. especially Mittnik et al. (2017) on 4000-year-old grave steads in the Lech Valley, Bavaria, pointing to marked gender-related and social differences. The graves reveal local male lineages of up to five generations with accumulated wealth, whereas rich, unrelated females were of foreign descent. Finally, the site contains a group of males and females with no valuable grave goods and no mutual family ties.

10 Szemerényi (1977: 63–66), Gamkrelidze & Ivanov (1995: 662), Mallory & Adams (1997: 386–387), *NIL* 672–675, Olsen (2020a: 114–125).

11 E.g., Schulze (1907: 401), Buck (1988 [1949]: 124), *IEW* 1043, Darms (1978: 7), Mallory & Adams (2006: 215).

On the other hand, the meanings 'wife's mother/father' are well attested in Italic, Celtic, Germanic, Albanian and Indo-Iranian[12] – indeed, the oldest attestations of 'mother-in-law' in Italic and Germanic refer to the wife's mother, just as the only Avestan example of *xᵛasura-* refers to the wife's father.[13]

Hence, it seems more economic to assume that a coherent dialect area consisting of the eastern Balkanic languages and Balto-Slavic was subject to a lexical narrowing than the alternative, namely that the remaining branches of Core Indo-European went through mutually independent processes of semantic extension.

This analysis is further confirmed by a number of secondary derivatives. The vr̥ddhi derivative **su̯ēĥkuró-* 'brother-in-law', based on **su̯éĥkuro-*, must be the son of the father-in-law, but if this father-in-law exclusively referred to the husband's father, the brother-in-law must always be the husband's brother, otherwise known as **dah₂i̯u̯ér*, which is not the case. The oldest attestation of Old High German *swāgur* refers to the wife's brother, though we also find the alternative meanings 'sister's husband', 'sister's son' and 'husband's brother'. This may of course be due to semantic extension, but more significantly, similar derivatives in modern Indo-Iranian languages exclusively concern the wife's family, thus **śvā́śuri-* > Kashmiri *hahar* 'wife's brother' and **śvaśuriya-* > Pashai (Dardic) *išpairi*, also 'wife's brother' (Turner 1962–1966: 737). The linguistic evidence thus suggests that the wife's family played an important role in the designation of 'in-laws' of the oldest generation, and that it may even be appropriate to turn the tables and suggest that the original meaning of **su̯eĥkrúh₂s/su̯éĥkuros* was 'wife's parents'.

Another unsolved linguistic question is the derivational relationship between the words for 'father-in-law' and 'mother-in-law', where again some scholars assume that 'father-in-law' is the primary formation (e.g., Peters 1980: 184, Mayrhofer 1986: 161–162). It is, however, remarkable that the feminine formation belongs to a morphologically rare type, whereas the masculine is a simple thematic stem that may easily have been created from the feminine along the following lines:

**su̯eĥkrúh₂-* 'mother-in-law'
→ **su̯éĥkruh₂-o-* '(someone) associated with the mother-in-law' > **su̯éĥkru-o-*
→ **su̯éĥkuro-* (metathesis preventing hiatus; Olsen 2020: 122).

12 Out of the two attestations of *śvaśrū́-* in the *Rigveda,* one (10.85.46) refers to the husband's mother, the other (10.34.3) to the wife's (cf. Olsen 2020a: 115–117 for discussion).

13 *Yt.* 10.116: "Twentyfold is the contract between two friends … eightyfold … *–antarə zāmātara xᵛasura* – between son-in-law and father-in-law", cf. Gerschevitch (1967: 131).

There are several indications in the individual languages that the mother-in-law is the important member of the pair: Welsh *chwegrwn* and Russian Church Slavic *svekrъ* 'father-in-law' are modeled on the feminine, Modern Persian *xusrū*, the old feminine form, refers to both the mother-in-law and the father-in-law, German *Schwiegervater* is created after *Schwieger* 'mother-in-law', and the literal meaning of Armenian *skesr-ayr* 'father-in-law' is either 'mother-in-law's husband' (if < **skesowr* + *ayr*) or 'mother-in-law-father' (if < **skesowr-a-hayr*; cf. Szemerényi 1977: 64).[14]

Also in Greek, the irregular final accent of ἑκυρός as opposed to Vedic *śváśura-*, whose original status is secured by the contrast-accented vṛddhi formation **su̯ēĥuró-*, would point to influence from the feminine. Frisk (*GEW* 1: 478–479) offers a coherent and convincing explanation for these observations: "Auch in anderen Sprachen haben die Namen der Schwiegermutter neue Bezeichnungen des Schwiegervaters herbeigeführt … Die Oxytonierung in ἑκυρός wird dadurch leicht begreiflich. Offenbar hat im Leben der alten Großfamilie, namentlich für die junge Frau … die Schwiegermutter eine wichtigere Rolle gespielt als der Schwiegervater. Die Frage ist somit berechtigt, ob nicht auch idg. **su̯éĥuros* gegenüber **su̯eĥrū́s* sekundär ist".[15]

In conclusion, the linguistic data suggest that the mother-in-law had an important function in her own right as the female authority figure of the younger women of the household, while the primary role of the father-in-law was that of master of the house and head of the patriclan. However, while this is all perfectly compatible with the traditional understanding of Indo-European family structure, what may seem more surprising at first sight is the prominent role that originally seems to have been attributed to the *wife's* mother in the role of mother-in-law.

14 Cf. also Modern Armenian **skesur-pap* "father at husband's mother", i.e., husband's father, and *zokʻančʻ-pap* "father at wife's mother", i.e., wife's father (Martirosyan 2010: 581).

15 Cf. already Specht (1938: 193): "Da die in die idg. Großfamilie aufgenommene Schwiegertochter durch Pflicht und Arbeitsbetätigung im wesentlichen mit der Schwiegermutter verbunden war, so ist es auch sprachlich verständlich, daß das verwandtschaftliche Verhältnis zwischen Schwiegertochter und Schwiegervater durch adjektivische Ableitung aus dem Begriff **sveĥrū́s* wiedergegeben wurde". I wish to thank Anahita Hoose (p.c.) for pointing out the secondary role played by the father-in-law in medieval Jain literature as an illustration of "a society with a high degree of gender segregation in domestic environments" where the daughter-in-law "is totally subordinate to the senior woman of the household, who appears as a much more significant figure in her life than her husband himself".

This leads us to the relation of Indo-European–speaking men to their in-laws. As for the parents-in-law, we first observe that the pair **su̯eĥkrúh₂s/ *su̯éĥkuros* cannot be traced further back than Core Indo-European. We do not know the terminology in Proto-Indo-European or even Proto-Indo-Tocharian. Secondly, the etymological interpretation is debatable. Usually **su̯e-* is assumed to be the stem of the reflexive pronoun,[16] but if this is correct, the element **-ĥrúh₂-/-ĥkuro-* is less clear. A connection with **kruh₂-* '(outside) blood', suggested by Linke (1985), does not account for the discrepancy between **ĥ* and **k*, and quite apart from its doubtful social implications, Pinault's derivation from an adverbial **su̯é-tĥku̯-er-* 'having/taking (others') child as his (their) own' (2017: 96) is excessively complicated and necessitates an ad hoc sound change. At first sight, Schwarz's interpretation of **ĥkuro-* from **-ĥkuHro-* as in Vedic *śūrá-* 'strong, powerful' (1992: 405) is more promising as the short vowel might be due to compositional laryngeal loss (Mayrhofer 1995: 149–150), but this is only possible if the masculine form was primary, contrary to the circumstantial evidence discussed above.

Finally, Szemerényi (1977: 63–66) ventured the idea that the final part of the compound was the word for 'head', elaborated by Olsen (2020: 120) with a tentative reconstruction **su̯e-ĥkrh₂u- > *su̯e-ĥkruh₂-* 'someone with (her) own head (of family)'.[17] However, this was no more than a loose conjecture, and perhaps a semantically more satisfactory solution is at hand:

The root **ĥkerh₃-* (*LIV*² 329) is the basis of the verbs Greek κορέννυμι, Lithuanian *šérti* 'feed, nourish' and Armenian *serem* 'nourish, bring up', *serim* 'be born', with such derivatives as *serownd* 'offspring' and *sermn* 'seed'. From Latin we have the *s*-stem *Cerēs* 'goddess of grain and fruits' with close morphological parallels in, e.g., Armenian *seṙ* 'offspring', later also *ser* (Olsen 1999: 85–86), and in Old High German *hirso*, Old Saxon *hirsi* 'millet' (de Vaan 2008: 109–110). With an *s*-stem noun and possibly also a stative ('fientive') verb (cf. *LIV*² l.c.), the corresponding adjective could well be a *u*-stem. While there is no other direct evidence for such a derivative, we may thus consider a compound **su̯e-ĥkrh₃-ú- > *su̯e-ĥkrúh₃-* with the approximate meaning 'brought up/raised/grown separately', or perhaps, as suggested by Janus Bahs Jacquet (p.c.), 'having her own/separate offspring', bearing in mind that the reflexive stem **su̯e-* is ambiguous, not only referring to 'oneself, one's own', but also what is 'by itself, separate', cf., e.g., Lithuanian *svēčias* 'stranger, guest'. In the latter meaning, it has thus apparently gained ground in a

16 For an alternative segmentation **su̯eĥk-u̯er-* with the same suffix as **dah₂i̯u̯ér-* 'brother-in-law', cf. Mayrhofer (1986: 162).

17 Laryngeal metathesis **h₂u > *uh₂* unless followed by a vowel, cf. Rasmussen (1989: 103).

number of terms for in-laws. For the mother-in-law the suggested interpretation fits nicely, both if we are talking about the wife's mother, which may have been the oldest meaning, and if we are referring to the spouse of the master of the house. In both cases, the mother-in-law, by the continuous practice of exogamy would have been raised separately from her husband's clan. If this interpretation is correct, we would originally not be dealing with a feminine *-*uh₂*-stem, but rather an adjectival *u*-stem where the sequence *-*h₃u*- regularly metathesized to *-*uh₃*- and was then supplied with the nominative ending *-*s*.

4 Other kinship and social terms with **sṵe-*

The reflexive stem **s(ṵ)e-* 'self, own' and 'own, separate' abounds in kinship terminology. The most obvious example is the word for 'sister', **sṵésor-* 'sister', whether 'own woman' or 'separate woman', attested in all branches except Anatolian and Albanian, e.g., Vedic *svásar-*.[18]

Apart from this clearly archaic formation, the stem is found in a number of terms either referring to the man's in-laws or to his associates. As argued by Olsen (2013), the Old High German term for 'brother-in-law, sister's husband', *gi-swio* (*n*-stem) should be analyzed as a 'Hoffmann compound' (**kom-*)*sṵ(e)i̯-h₃on(h₂)-* 'someone having his own authority, an independent man',[19] where the prefix *gi-* indicates that we are dealing with one of a group (cf. German *Geschwister* 'siblings'), and the Hoffmann element has the well-known function of suffix of domination (cf., e.g., Latin *mātr-ōn-a*, *patr-ōn-us* '(someone) having maternal/paternal authority').

A reconstruction based on Old High German alone may seem slender evidence for a Core-Indo-European stem, but its archaic character is confirmed by two secondary derivatives, one masculine and one feminine:
Within Germanic, the thematic masculine **swainaz* is attested with various meanings, all indicating (young) men of subordinate rank such as Old Norse *sveinn* 'boy, servant, thrall, herdsman', Old English *swān* 'man, warrior, herdsman'. Thus, if the **(-)sṵ(e)i̯-h₃on(h₂)-* is 'someone with his own authority', a thematic derivative with the usual appertinentive/adjectivizing function of the thematic

18 Greek ἕορ has the broader meaning 'female relative; daughter, niece'. Cf. also Janda (2000: 159).

19 **sṵi-* as the compositional variant of **sṵe-* or **sṵei̯-* as in the possessive stems **mei̯no-* 'my', **tei̯no-* 'your', **sei̯no-* 'his, her'.

vowel, i.e., **su̯oi̯-h₃n(h₂)-o-*[20] (m) > **swainaz*, must be '(someone) connected with someone having his own authority', i.e., 'a subordinate of a free, independent man'.

An even more striking confirmation of the basic stem is a feminine, for which we may mechanically posit a proto-form **su̯oi̯-h₃n(h₂)-i̯ah₂-*, regularly yielding on the one hand Armenian *kʿeni*, on the other Lithuanian *sváinė*, Latvian *svaîne* 'wife's sister'. This cannot be derived from the above-mentioned masculine **su̯oi̯-h₃n(h₂)-o-*: firstly, the most likely corresponding feminine would be a simple **-ah₂-*stem, not an **-i̯ah₂-*derivative,[21] and secondly, it would seem rather peculiar to define a 'wife's sister' as a woman connected with a dependent man. Consequently, the original meaning must be something like 'a woman connected with a man with his own authority', which may be interpreted in two ways according to the wife's sister's current status, where she is either under the authority of her father or, when she marries, that of her husband. In both cases, we get the notion that the wife's family, at least in the aristocratic layers of society at the stage of Core Indo-European where this segment of the vocabulary was coined, may well have been of a different ethnicity from that of the husband's, but that its male members were still free and independent. Most likely, their family structure was also of the patrilocal and patrilineal type.[22]

A similar line of thought with the stem of the possessive of the reflexive pronoun underlies Russian *svojak* 'sister's husband' or 'husband of wife's sister' (but not 'husband's brother'), understood as someone by himself, from his own separate clan, different from that of the speaker, and with his own personal authority.

As argued in Olsen (2013), the striking similarity between Old Norse *svilar* 'men whose wives are sisters' and Greek (Hesychius) ἀέλιοι with the same mean-

20 Rasmussen (1989: 199–203) points to several cases of *o*-grade in *no*-derivatives, whether 'simple' **-no-*stems or derivatives of **-men-*stems. A parallel to **su̯oi̯h₃n(h₂)o-* could be **(h)oi̯hno-* 'one', perhaps **(h)oi̯h₃n(h₂)o-* where the acute intonation of Lith. would imply a laryngeal before the *no*-suffix.

21 Cf. Mallory & Adams (1997: 85): "Morphologically, **su̯oi̯nii̯o/ea-* might reflect originally an adjectival derivative of **su̯ei̯ōn*".

22 The opinion forwarded by Mallory & Adams (l.c.; entry by Martin Huld) that the original formation must have been the masculine **su̯oi̯nii̯o-* seems illogical and founded on the common preconception that whenever there is a pair of etymologically related kinship terms, the feminine is automatically derived from the masculine. It is true that a proto-form **su̯oi̯nii̯o-* would account for Lithuanian *sváinis* 'brother-in-law' (esp. 'wife's sister's husband'), and Latvian *svaînis* 'brother-in-law' (esp. 'wife's brother; wife's sister's husband'), but these are better interpreted as retrograde formations to the feminine since the Armenian cognate *kʿeni o*nly has the meaning 'wife's sister'.

ing, does suggest an old etymological connection, which is in itself remarkable, but presumably they do not contain the pronominal stem **su̯e-*.[23]

Derivatives including a suffix **-to-* or **-ti̯o-* are sufficiently widespread in social terminology to secure pre-dialectal age. An interesting case is Greek ἕτης, Elian ϝέτας < **su̯etah₂-*,[24] in Homer most often in the phrase κασίγνητοι τε (ϝ)έται τε 'brothers and ἕται' (*Il.* 6.239, 16.456, and 674 and *Od.* 15.273). Here the ἕται are mentioned immediately after the brothers as the most important members of the family, e.g., in such contexts as whose fate a warrior will ask for or who will eventually take care of his funeral.

Their position in relation to the warriors appears to be higher than that of the mere comrades, the ἑταίροι, in *Il.* 7.295:

> σούς τε μάλιστα ἕτας καὶ ἑταίρους, οἵ τοι ἔασιν
> and most of all your kinspeople and comrades that you have[25]

This suggests that we are dealing with a group holding an intermediate position between consanguineous brothers and friends and allies in general, i.e., probably 'male in-laws', which amounts to the same as 'allies by marriage' (cf. also Benveniste 1969: 330–331). Thus, Frisk's definition (*GEW* 1: 581) seems quite to the point: "Eig. somit 'Eignener', d.h. 'Angehöriger der (eigenen) Sippe, bzw. 'Privatmann'".

Ἕτης, pl. ἕται, is an old group designation (Risch 1974: 35, Schwyzer 500), probably the model of later terms such as οἰκέτης 'slave', φυλέτης 'member of

23 Rather connected with Old Norse *svill,* Old High German *swelli, swella* 'doorsill, door plank' on the one hand, Greek σέλμα 'deck-plank, rowing bench' on the other?

24 Cf. Chantraine (1958: 150) on the psilosis.

25 Also in connection with neighbours (γείτονες; *Od.* 4.16: Ὣς οἱ μὲν δαίπνυντο καθ' ὑψερεφὲς μέγα δῶμα γείτονες ἠδὲ ἕται Μενελάου κυδαλίμοιο, τερπόμενοι "so they were feasting in the great high-roofed hall, the neighbors and kinsfolk of glorious Menelaus, and making merry"), with cousins (ἀνεψιοί; *Il.* 9.464–65: ἦ μὲν πολλὰ ἕται καὶ ἀνεψιοὶ ἀμφίς ἐόντες / ἀυτοῦ λισσόμενοι κατερήτυον ἐν μεγάροισι "My fellows to be sure and my kinspeople stood around me and with many prayers sought to keep me there in the halls"), and without any further specification in contexts of war and festivities (*Il.* 6.261–62: ἀνδρὶ δὲ κεκμηῶτι μένος μέγα οἶνος ἀέξει / ὡς τύνη κέκμηκας ἀμύνων σοῖσιν ἕτῃσι "When a man is weary with toil, wine greatly increases his force, just as you are weary with defending your fellows"; *Od.* 4.3–4: τὸν δ' εὗρον δαινύντα γάμον πολλοῖσιν ἕτῃσιν / υἱέος ἠδὲ θυγατρὸς ἀμύμονος ᾧ ἐνὶ οἴκῳ "Him they found giving a marriage feast to his many kinsfolk for his flawless son and daughter within his house"). Translations of Greek texts follow the Loeb edition.

a phyle' (cf. also Chantraine 1933: 312). Perhaps the formation is an original collective of an adjective of appurtenance based on the stem **sm̥̂e-*, with suffix **-to-*.

At any rate, a similar derivative, **sm̥̄to-* or **sm̥̂āto-* is the basis of Old Church Slavic *svatъ* 'relative by marriage' (vb. *svatiti sę* 'enter an alliance of marriage'; Vaillant 1974: 680) and Russian *svat* with the double meaning of 'suitor' and 'relative by marriage', e.g., referring to the relation between the father of the bridegroom and the father of the bride (Vasmer 1955: 586–587).[26]

Simon Poulsen (p.c.) has suggested that the peculiar and otherwise unexplained vocalism, **-ō-* or **-ā-*, may perhaps be interpreted as influence from the word for 'brother', and indeed the phraseological connection of the two words in both Greek and Slavic would favour such an idea. From an Old Slavic nominative *brat(r)ъ* + **sm̥̂eto-* > **svetъ* (: Greek ἕτης) it would be possible to change **svetъ* to *svatъ* after *bratъ* as a rhyming phrase, after the dissimilation of *brat(r)ъ* to *bratъ*, but with preservation of the *o*-stem inflection of the original stem **sm̥̂eto-*. A phraseological unit **bʰráh₂ter-* + *sm̥̂eto-* 'brother(s) and inlaw(s)' is likely to be inherited at least from the common predecessor of Greek and (Balto-)Slavic. As we have already seen, κασίγνητοι τε (ϝ)έται τε is a set phrase in Greek, and the same is the case of the Polish expression *on mi ni brat, ni swat* "he is nothing to me", especially seen in the perspective that *swat* otherwise only has the secondary meaning of 'matchmaker'. Thus, the phrase would mirror the hierarchy between consanguineous brothers and in-laws in a society where alliances in war and in peace were of vital importance.

However, even where there are no actual ties of marriage involved, the element **sm̥̂e-* may be used in designations of individuals with an independent status, whether allies or not. For example, an exact match exists between Lithuanian *svẽčias*, also *svetỹs*, *svẽtis* 'guest, stranger' (Fraenkel 1965: 950 and 952, *ALEW* 2: 999–1000) and Armenian *kʿecʿ* 'separate' < **sm̥̂e-tm̥̂o-*,[27] with the same structure as derivatives of adverbs of the type Vedic *ápatya-* 'descendant' (*apa*), *nítya-* 'own, native' (*ni*).

With the variant **se-*, we have Old Church Slavic *posětiti,* Russian *posetit'* 'visit', presumably a denominative from an unattested **sětъ* < **sēto-* 'guest' with unexplained lengthening (vr̥ddhi of **seto-* beside **sm̥̂eto-*?) and in Greek ἕταρος 'comrade, companion, friend' beside the secondary ἕταιρος, ἑταῖρος (after an unattested feminine *ἕταιρα; the full analogical process is described in *GEW* 1: 579).

26 Borrowed into Lithuanian as *svõtas* 'wedding guest'.

27 On the development **tm̥̂-* > *cʿ* in Armenian, cf. Olsen (1988).

Cf. also Chantraine (1933: 226) on the somewhat unclear suffix -αρός, as also in, e.g., νεαρός 'young', λιπαρός 'fat, greasy'.

5 'Binding' in marriages and alliances

Bonds of marriage or loyalty, whether between in-laws or friends and associates, are often derived from roots meaning 'bind', notably **bʰendʰ-* or perhaps **bʰendh₁-* (*LIV²* 75 with footnote 1). The important point is the alliance, not the exact relation between the two parties. After the semantic specialization of ἑκυρός in Greek to 'husband's father', πενθερός[28] took over the meaning of 'wife's father' (whence also πενθερᾱ́, πενθερή 'wife's mother'), as is the case in Homer (*Il.* 6.170 and *Od.* 8.582), but in later texts it is also used about both the 'son-in-law' and the 'brother-in-law'.

Vedic *bándhu-* is attested as an abstract noun 'connection, relation, bond, kinship', but it also denotes a 'relative', especially on the mother's side. Thus, in RV 1.164.33, the female counterpart of *Dyāus*, the *pitā́ janitā́* 'father procreator', is *bándhur me mātā́ pr̥thivī́* 'my relation, mother earth'.

In Baltic, there seem to be no family ties involved in the relevant derivatives: Lithuanian *bañdžius* is a 'friend, comrade; labourer, servant; herdsman'[29] and the adjective *bẽndras* 'joint, common' simply denotes a 'friend' or 'participant' as a noun. A specific reference to military companionship is found in the compound *bendra-giñklis* 'brother-in-arms' (as if **-gʷʰentli-i̯o-*).

Finally, one Germanic term has to be mentioned, viz. Old Frisian *bōst* < **bʰondʰ-st(h₂)u-*, or perhaps more likely **bʰondʰo-st(h₂)u-* 'marriage', probably containing the compositional **-sth₂ú-* of the root **stah₂-* 'stand' (cf. *NIL* 637–638 with references).[30] It is uncertain whether there is a further etymological connection between this *u*-stem and the Germanic words for 'cowshed' or 'barn', **bans(t)a-*, in Gothic *bansts* 'barn' (*i*-st.; cf. Casaretto 2004: 453), Old Frisian *bōs* (with suffix **-to-*) 'cowshed', Old Norse *bass* 'stall in a cow-barn' etc. The derivational

28 Perhaps a remodeling of **πενθυρός as a compromise between the externally attested *-u*-stem (: Vedic *bándhu-*) and a derivative in **-ro-* (: Lithuanian *bẽndras*), cf. Olsen (2020a: 124) with references.

29 Cf. Olsen (2019) with references on the suffix.

30 The exact rules for the preservation or loss of compositional **-o-* (> *-a-*) in Germanic are not quite clear, but at least there seems to be a tendency to syncopate the vowel in Gothic in pretonic syllables, cf. Krause (1968: 71). The initial *o*-stem **bʰóndʰo-* would be an *o*-grade action noun 'binding, bond'.

basis of these words seems to be related to Lithuanian *bandà* '(herd of) cattle' whose etymological background is disputed (Fraenkel 1962: 34). According to Casaretto (l.c.), the two meanings 'marriage' and 'cowshed' in Germanic are to be explained as mutually independent derivatives, and Kroonen (2013: 52) even considers them unrelated.

However, it may be worth noticing that a semantic parallel may be found in Vedic *gotrá-* 'cow stable', which in later Sanskrit acquires the meaning 'family, lineage' as a testimony of the importance of both herd and family. It is hardly unthinkable that a similar semantic linking occurred to Germanic-speaking populations, so that an original meaning 'standing place for the band, herd (of cattle)' in Old Frisian developed into 'status of bonding', i.e., 'marriage'. At least we may conclude that there seems to be a small series of derivatives of *u*-and *ro*-derivatives of the root **b^{h}end^{h}-* in Core Indo-European, or at least Greek, Indic and Baltic, that specifically relate to social bonds.[31]

6 The leader and his escort: the root **sek^{w}-* 'follow'

In war as in peace, the master of an Indo-European–speaking household was dependent on his group of followers as a patron in relation to his clients. The root used with this semantic shading is **sek^{w}-* 'follow, join' (*LIV*^{2} 525–26), from which an *o*-grade *ah$_2$*-stem **sok^{w}áh$_2$-* '(group of) followers, escort' is the basis of numerous derivatives in Italic, Germanic, Greek, Indo-Iranian and perhaps Armenian.

A derivative in **-u̯on-* is continued in Greek ὀπάων < **sok^{w}ah$_2$-u̯ōn* 'a follower', already attested in Mycenaean dat. sg. *o-qa-wo-ni*. The verb corresponding to the basic *ah$_2$*-stem is ὀπάζω 'chase; make follow, give as a companion', very frequent in the Homeric poems (cf. also for the semantic scope ἀοσσέω 'help' from 'be a co-follower').

From this feminine/collective, a secondary *i*-stem, **sók^{w}h$_2$-oi̯-*, originally '(someone) belonging to the escort', is directly continued in Indo-Iranian where the extremely common Vedic *sákhāy-* 'friend, companion', attested 266 times in the Rigveda, typically expresses a mutual relationship, e.g., RV 1.26.3: *sákhā sákhye* 'a friend for a friend' with an exact match in Avestan *haxa haš̊ē*. The stem is further continued in Old Persian *haxā-maniš-* 'Achaemenid', lit. 'characterized by a follower's spirit' (Schlerath 1973: 36). Friends are often described in connection with brothers, thus RV 10.7.3*a–b*:

31 Cf. also Olsen (2020a: 132) on Lithuanian *laíguonas* 'wife's brother'.

agním manye pitáram agním āpím agním bhrā́taraṃ sádam it sákhāyam[32]
I consider Agni our father, Agni our friend, Agni our brother and our comrade forever

and in the opposite order, RV 5.85.7*a–b*:

aryamyàm varuṇa mitryàm vā sákhāyam vā sádam íd bhrā́taraṃ vā
O Varuṇa, the offence that we have committed against any partner, be he one by alliance or one by custom, or against a brother …

A neuter thematicization of this *i*-stem leads to the abstract **sokʷh₂-i(i̯)-om* > Vedic *sakhyám* 'friendship, companionship', also a very well-attested concept with 157 attestations in the Rigveda and a close cognate in Avestan *haxaiia-* 'id.'. Parallel to the basic nouns, *sakhyá-* is typically connected with *bhrātrá-* 'brotherhood', as is also Avestan *haxaiia-* with *brāθra-*, e.g., RV 4.10.8*a–c*:

śivā́ naḥ sakhyā́ sántu bhrātrā́gne devéṣu yuṣme
let our comradeship be propitious, our brotherhood, o Agni, (with respect) to you gods

Another derivative is Vedic *sakhitvám* (n) 'friendship, companionship' < **sokʷh₂-i-tuh₂-óm*,[33] a thematicization of a stem in **-tuh₂(t)-*, which would originally have denoted collectives of individuals (cf. the description in McCone 1987 of 'age sets' in Latin *iuventūs*, *virtūs*, *senectūs*). Again, the context with 'brotherhood' refers to an entire circle of associates of various levels, cf. e.g., RV 4.25.2*c–d*:

ká índrasya yújyaṃ káḥ sakhitvám kó bhrātrám vaṣṭi
who is eager for the fellowship of Indra, who for the comradeship, who for the brotherhood?

In the masculine, the **-i̯o-*derivative **sokʷh₂-i̯ós* is at least potentially continued in Italic and Germanic, though it is strictly speaking impossible to distinguish between **sokʷi̯ó-* from an *o*-grade action noun **sókʷo-* 'following, escort' and **sokʷh₂i̯ó-* from the feminine/collective **sokʷáh₂* (cf. de Vaan 2008: 569–570). The latter has the advantage that the stem in the neuter is already known from Indo-

32 Translations of the Rigveda from Jamison & Brereton (2014).
33 Laryngeal loss according to the νεογνός-rule.

Iranian. Latin *socius* thus makes sense as 'comrade, companion, associate', especially 'allied, confederate, someone pledged by a treaty to give support in war',[34] and Germanic **sagja-* > ON *seggr* 'man, hero', OS *seg* 'man',[35] OE *secg* 'man, warrior'.

A close cognate of Vedic *sakhitvám* is Latin *societās* 'fellowship, partnership, alliance', etc. Whereas *sakhitvám* is a thematicization of an abstract **sokʷh₂i-tuh₂-*, *societās*, as if **sokʷh₂-i̯o-tah₂-t-*, continues a stem with the suffix conglomerate **-tah₂-t-*, which is the usual substitution for *-tūt-* in Latin.[36] As the only difference lies in the slightly different derivational basis, an *i*-stem in Old Indic vs. an *i̯o*-stem in Italic, it may not be too daring to assume a common origin. For the original meaning of *societās* one may adduce an example such as Cic. *Rep*. 1.49: *quod enim est apud Ennium*: *nulla sancta societas nec fides regni est* "for it is said in Ennius: there is no sacred companionship of trust in a kingdom". As a contrast to the *societās* as a connection of associates belonging to different groups, we have *cīvitās*, a similar formation based on **ĥei̯u̯o-* → Latin *cīvis* 'citizen', denoting a unity of insiders.[37]

Finally, I would tentatively suggest a derivation from this root for the etymologically obscure Armenian *zokʿančʿ* 'mother-in-law, wife's mother', whence *zokʿančʿ-pap* 'father-in-law', cf. *pap* 'grandfather' (Olsen 2020a: 117). As in Greek and Balto-Slavic, a new term was coined when the use of the original *skesowr* was earmarked for the husband's mother. *Z-* is a prefix and preposition, which at least semantically corresponds to **h₂n̥bʰi-* (cf. *z-genowm* : Vedic *abhi-vas-* 'dress'),[38] so a proto-form **h₂n̥bʰi-sokʷah₂-* would be expected to yield *zokʿa-*, corresponding to the Vedic compound verb *abhi-* + *sac-* 'follow, escort' and the noun *abhi-ṣác-* 'follower, escort'.

While the end segment *-nčʿ* of *zokʿančʿ* is not quite clear, it is not entirely isolated either. A structurally similar adjective *anterownčʿ* 'without a master', is somehow derived from the privative compound *an-tēr* (*tēr*, *o*-st.). Since a suffix *-nčʿ* is otherwise unknown, we may be faced with opaque compositional forms. As tentatively suggested by Olsen (1999: 612), a possible background of *-terownčʿ* could be a compositional **-i̯o-*stem **-h₂onk-i̯o-* 'turning towards, inclined to' from the root **h₂enk-* 'bend', added to the *o*-stem *-tēr-*, i.e., **-o-h₂onk-i̯o-*. Similarly *zokʿančʿ*

34 For the development **-k(ʷ)h-* > *-c-*, cf. *ricinus* 'a parasite on sheep': Arm. *orkʿin* 'ringworm, scab' < **rikhino-*, and the verb Sanskrit *rikhati, likhati* 'scratch'.

35 For the literal meaning, cf. Heliand 1028–29: *ne habda liudeo thani mêr, seggeo te gisîðun* "nor had He more folk about Him, more men in his following".

36 Cf. Olsen (2003) on the analysis of these suffixes.

37 Whether to **ĥei̯-* 'lie' or from a demonstrative stem as suggested by Vine (2006).

38 *Z-* is most likely the regular development of the sandhi variant **h₂n̥bʰi̯-* as suggested by Manaster Ramer (ms.). Cf. also Olsen (2002).

might be interpreted as *h_2m̥b^hi- > z- 'by' + *-sok^{w}ah_2-$h_2$onk-i̯o- from the ah_2-stem *sok^{w}ah_2-, identical with that of Greek ὀπάων. A formation of this kind would have a parallel in Indo-Iranian where Sanskrit -añc- < *-$h_2$onk- provides the strong forms of paradigms with suppletive -V̄c- < *-h_3k^w- (Wackernagel 1954: 152–157). In most cases, the derivational bases are adverbial forms, but cf. YAv. *hunairiiå̊ńc-* 'skillful' ('bent/turned towards the arts', *hunara-*), which incidentally contains the same element *-$h_2$ner- as -tēr- (< *ti-ayr) in *anterownč‘*. If the suggested analysis of *zok‘anč‘* is correct, the literal meaning would thus be something like 'someone (f) turned towards a follower', where the 'follower' would denote the wife's father.[39]

7 Inlaws and allies

In the languages where *su̯éĥkuros has been limited to indicate the husband's father, various new terms were coined for the wife's father, thus the above-mentioned Greek πενθερός, the etymologically opaque Lithuanian *úošvis* (fem. *úošvė* 'wife's mother'),[40] Old Church Slavic *tъstъ* (fem. *tъsta* 'wife's mother') and Armenian *aner*.[41]

It seems clear that the in-laws on the wife's side constituted an essential part of a free man's circle of alliances. The following passage from the Odyssey (*Od.* 8.581–586) may serve as an illustration (cf. also Olsen 2020: 123–124):

> ἦ τίς τοι καὶ πηὸς ἀπέφθι το᾽Ἰλιόθι πρὸ
> ἐσθλὸς ἐών, γαμβρὸς ἢ πενθερός, οἵ τε μάλιστα
> κήδιστοι τελέθουσι μεθ᾽ αἷμά τε καὶ γένος αὐτῶν;
> ἦ τίς που καὶ ἑταῖρος ἀνὴρ κεχαρισμένα εἰδώς,
> ἐσθλὸς; ἐπεὶ οὐ μέν τι κασιγνήτοιο χερείων
> γίγνεται ὅς κεν ἑταῖρος ἐὼν πεπνυμένα εἰδῇ.

39 Cf. also for the semantic scope Old Irish *dám* 'company, escort' vs. Old Welsh *dauu* 'cliens' and Welsh *daw(f)* 'son-in-law, daughter's husband; sister's husband; member of a retinue, guest'. The most convincing analysis of these words is a vr̥ddhi derivative *dōmah$_2$- (OIr. *a*-stem)/*dōmo- (W) of the word for 'house', 'those/someone pertaining to the household'. The alternative comparison with Greek δῆμος 'land, territory; people' from *dah$_2$i̯- 'distribute' is less likely for semantic reasons (cf. *LÉIA* D-20 and de Bernardo Stempel 1999: 524–525 for further discussion).

40 Klingenschmitt's derivation (2008) from *ō-pĥu̯ii̯o- "der zu der Kleinvieh (Ziegen und Schafe) (als Mitgift oder als Kaufpreis) herbeibringenden (Braut) Gehörige (Vater)" is an inspired, but unsubstantiated suggestion.

41 Cf. Martirosyan (2010: 81–82) and Olsen (2020a: 125) for etymological discussions.

> Did some kinsman (πηός) of thine fall before Ilium, some good, true man, your daughter's husband (γαμβρός) or your wife's father (πενθερός), such as are nearest to one after one's own kin and blood? Or was it perhaps some comrade (ἑταῖρος) dear to thy heart, some good, true man? For no whit worse than a brother is a comrade who knows what is right

Here the allies in war are listed in three groups according to importance. First in intimacy and importance is one's own kin and blood, the αἷμά τε καὶ γένος, including of course the consanguineous brother, the κασίγνητος. The least intimate is the friend/associate, the ἑταῖρος. In the intermediate category, comprising πηός, γαμβρός 'daughter's husband, son-in-law' and πενθερός 'wife's father', πηός seems to be the overall category covering both γαμβρός and πενθερός.[42] The primary meaning would thus be 'kinsman by alliance', whence only secondarily 'male relative' in general.

As for the etymology, Chantraine (2009: 865), while stating that this is a "[t]erme de parenté qui doit remonter à l'indo-européen", had no positive suggestions; Frisk (*GEW* 2: 530) was skeptical towards the traditional comparison with Latin *parricīda* 'murder of a near relation' (similarly de Vaan 2008: 447–448); and Beekes' final verdict (2010: 1187) was simply: "Kinship term without certain connections".

If πηός, Doric πᾱός < **pāsó-* does have an Indo-European background, the theoretical possibilities would at first sight include **pah₂só-*, **kʷah₂só-* and **ĥu̯ah₂só-*/**ku̯ah₂só-*, none of which gives an immediate clue. However, with the additional possibility of 'laryngeal breaking' **uh₂* > **u̯ā* in unaccented syllables,[43] a proto-form **puh₂só-* is remarkably similar to the inherited theonym Πᾱ́ν, Vedic *Pūṣā́* (stem *Pūṣán-*), which would continue a Hoffmann formation. While Oettinger (1998 and 2000) suggests a reconstruction "*péh₂-u̯s-h₃ō(n)*", Olsen (2010: 124–126) ventures to unite the Vedic and Greek forms under a common proto-form **puh₂s-h₃ónh₂-* yielding *Pūṣā́* and **pu̯āsṓn* > Πᾱ́ν, respectively, thus reducing the need for analogical levelling in the paradigm. Beside this Hoffmann formation, it would now be possible to assume a thematic derivative **puh₂só-* > **pu̯āsó-* > Gk. πηός.

An etymological connection between a theonym and a term for kinsman by alliance may seem far-fetched. However, in her contribution to the present volume, Jil Schermutzki has highlighted two important, and thus far apparently un-

42 Cf. *LfgrE* (2001: 1237) on this passage: "nach der Logik des Satzes ist *π.* kein Blutsverwandter, sondern Oberbegr. zu γαμβρός u. πενθερός, also allg. Bez. für alle durch Heirat Verwandten".

43 Cf. Francis (1970) and Normier (1977 and 1980), modified by Olsen (2009).

noticed, similarities between Pan and Pushan, namely their reproductive power and their connection with the wedding ritual. Sexually, both have the ability to arouse women; in terms of marriage, Pushan takes on the important function of leading the bride, and despite his oppositional attitude to marriage, Pan has similar functions in the wedding ritual.

Thus, Pushan is described as the "herdsman of the world", *bhúvanasya gopā́ḥ*, in RV 10.17.3, and in the wedding ritual of the Sun Maiden, RV10.85.26*a–b*, he leads the bride to the wedding:

> *pūṣā́ tvetó nayatu hastagṛyāśvínā tvā prá vahatāṃ ráthena*
> let Pushan lead you from here, having taken you by the hand. Let the Asvins convey you forth in their chariot.

Similarly, the shepherd god Pan seems to play a role as the bride leader of Persephone, as also discussed by Schermutzki. Consequently, the concept of 'bridesman, leader of the bride' seems to have been known at some dialectal stage of Indo-European.

Starting from the fact that the primary function of both Pushan and Pan seems to be that of a shepherd god, it also seems reasonable to assume that the basic root of their common name is derived from the root **pah₂i̯-* 'protect, herd, graze' (*LIV²* 460), as argued by Oettinger (1998: 545–546). The semantic connection from shepherd god to 'bridesman' is fairly straightforward. As a shepherd leads the herds from one pasture to another, the role of a bridesman or bride leader is to secure the safe transfer of the bride from her father's household to that of her new husband, so if the god **puh₂s-h₃ónh₂-* was the divine bridesman, it may not be too daring to suggest that the almost identical formation **puh₂s-ó-* indicated his earthly counterpart who would in practice be a prominent member of the bride's family, in other words a 'kinsman by alliance'. The derivational chains of the two nouns would be approximately as follows:

**páh₂us-* 'herding', etc.: *us*-stem, the type of Vedic *tápuṣ-* 'glow' →

1. **ph₂us-ó-* > **puh₂s-ó-*[44] > Greek **pu̯āsó-* > πηός 'someone herding or leading the bride', i.e., 'kinsman by alliance'
2. **ph₂us-h₃ónh₂-* > **puh₂s-h₃ónh₂-* > Vedic *Pūṣā́*, Greek Πᾶν 'leader of the herding', i.e., 'shepherd god' (→ 'divine bridesman')[45]

44 Cf. note 17 on the regular metathesis **h₂u* > **uh₂*.

45 Slightly differently (no 'laryngeal breaking' and no inclusion of πηός), Malzahn (2014).

This is not to suggest that other types of marriage such as actual abduction were excluded in Indo-European tradition, and if the suggested analysis is correct, the social implications need not go further back than the common prehistory of Indo-Iranian and Greek where the bonds between the two families would have been based on mutual respect and commitment.

8 Avunculate, fosterage and alleged cross-cousin marriage

According to a widespread myth in Indo-European studies, the inherited kinship terminology reveals institutionalized cross-cousin marriage,[46] more precisely the practice that in principle a young man should marry the daughter of his father's sister. The basis of this theory, famously forwarded by Benveniste (1969: 27), is the similarity (but never identity) in several branches of the Indo-European family between the words for 'grandfather' and 'maternal uncle'. However, aside from the obvious principal objection that such a practice would contradict the otherwise consistent principle of exogamy, the alleged arguments in its favour all have false premises. In particular, it is simply not true that the word for 'grandfather', Latin *avus*, etc., only means 'paternal grandfather' – the Romans also operated with an *avus maternus* 'maternal grandfather' – so it cannot be deduced that an *avunculus* 'mother's brother' must be interpreted as a 'little father's father'.

In an important study on the institutions of avunculate and fosterage among Indo-European-speaking populations, Bremmer (1976) has presented ample documentation for the intimate relationship of young boys and family members on their mother's side, particularly their maternal uncle, but in some cases also their maternal grandfather. The evidence includes case stories from Greek, Roman, Slavic and notably Germanic and Celtic traditions, and often the relationship involved actual fosterage of the boy in the mother's family. Simultaneously, Beekes (1976) argued against Benveniste that cross-cousin marriages of the type described are particularly characteristic for matrilineal societies, which would definitely not match the Indo-European background. Additionally, cross-cousin marriage is unknown in all archaic Indo-European–speaking traditions.

In general anthropological framework terms, the Proto-Indo-European kinship system can be described as a patrilineal system of the so-called Omaha type. One characteristic of such a system is a kinship terminology with 'skewing' of the generations, which is reminiscent of the frequent confusion between the words

46 Cf. Mallory & Adams (1997: 133–134 and 370) and Olsen (2020a: 78–80).

for 'grandson' and 'nephew'. However, this state of affairs cannot be projected back into the common proto-language.

As already noticed by Delbrück (1889: 403), languages where the old word for 'grandson', **népōts,* assumed the meaning 'nephew', specifically 'sister's son', are the very same as those where the word for 'maternal uncle' is derived from the word for 'grandfather'. This goes for the European branches, Italic, Celtic, Germanic, Baltic and Slavic.

It is important to realize that the terms for 'maternal uncle' are not identical, but independent formations, all derived from the 'grandfather' word, **h₂au̯h₂*(*o*)*s*, here in the specific meaning 'maternal grandfather'. In Italic and Celtic, the basis is an *n*-stem **h₂au̯h₂o-n-* in Latin *avunculus*, Welsh *ewythr*, Breton *eontr*, Old Cornish *euitor* and Old Irish *amnair* 'maternal uncle' (cf. McCone 1992: 105); the Germanic compound **h₂au̯h₂o-ĥoi̯mo-* > Old High German *ōheim*, Old English *éam* 'maternal uncle' has the literal meaning 'belonging to the home of the (maternal) grandfather'; and in Baltic and Slavic we find the derivatives **h₂au̯h₂i-h₃n*(*h₂*)*o-* > Lithuanian *avýnas* and **h₂au̯h₂ii̯o-* > Old Prussian *awis* and Old Church Slavic *ujъ* 'maternal uncle'.

The semantic extension of the word for 'grandson' to the meaning 'nephew', especially on the mother's side, includes from Italic post-Augustean Latin *nepōs* 'nephew', from Celtic Ogam Irish (gen.) *niotta* and Middle Welsh *nei* 'sister's son', from Germanic Old English *nefa* (also 'stepson') and Old High German *nefo*, *nevo* (also 'cousin'), and from Balto-Slavic Old Lithuanian *neptìs*, *nepuotìs* and Serbo-Croat *nećak* 'nephew'.

This linguistic mirror image is consistent with the combined tradition of avunculate and fosterage that only gradually developed as an areal phenomenon in the European branches, but remained foreign to Indo-Iranian where *nápāt-* exclusively means 'grandson, descendent', never 'nephew'. When Indo-European–speaking populations became more sedentary it must have been possible to establish more binding relations to the in-laws. And what could be more binding than leaving your young son in the care of their mother's family, in particular her brother who could fulfil the role of a substitute father figure and see to the boy's military education in a way that might even reduce the threat to the integrity and stability of the household that rivalry between brothers under the same roof can bring?

Thus, the description of the maternal uncle as 'the one connected with the (maternal) grandfather' would go hand in hand with the identification of the **népōts* as 'grandson' seen from the point of view of the boy's paternal grandfather and his household; and as 'nephew, sister's son' seen from the point of view of the boy's new warden, the maternal uncle, and *his* household.

Branch	Term for 'maternal uncle'	
Italic	**h₂auɣh₂on-*	grandson → nephew
Celtic	**h₂auɣh₂on-*	
Germanic	**h₂auɣh₂o-k̂oi̯mo-*	
Baltic	**h₂auɣh₂i-*	
Slavic	**h₂auɣh₂i-*	

TABLE 1. Grandfather ~ maternal uncle : grandson → nephew

9 Fosterage

The evidence for fosterage of young boys in the homes of their maternal uncles is sufficiently strong to leave out any doubt, but one may ask if, in the course of time, the alliance between two families by way of fosterage always had to follow this pattern. At least Italic, Celtic and Germanic share the root **h₂al-* in the meaning 'nourish', in the middle voice 'grow up' (*LIV²* 262), cf. Latin *adolēscō* 'grow up', *alumnus* 'foster-child', Old Irish *comalt* 'foster-brother, collactaneus', Middle Irish *altra* 'foster-father', Middle Welsh *athrawon* 'foster-uncles' (with **-awon* 'maternal uncle'!) and, e.g., Old Norse *ala* 'beget, bring up, nourish', *elska* 'love'.[47] At the same time, it is exactly in ancient Rome and in Celtic and Germanic societies that fosterage played a remarkably dominant role.

Besides the established type of fosterage of young, but not infant, boys in their maternal family, it does not seem unlikely that the alternative fosterage by 'milk kinship', as known from Arab and Native American societies, was practiced in part of northwest Europe. This implies that a family could adopt infants from friends and allies and thus extend its circle of influence. These infants would be fed and brought up with the family's own children, and emotional bonds would strengthen the patron–client relation between the two families.[48]

The institutionalized practice of fosterage is particularly well documented for medieval Celtic and Germanic societies, as described, e.g., by Gerald of Wales (12th c.) and in the Icelandic sagas, and Bradley (1991: 149–154) has highlighted the otherwise somewhat neglected institution of 'milk kinship' in ancient Rome.

47 Cf. also Danish *opelske* (trans.) 'grow (e.g., of plants)' and *elske på* 'breed (of animals)'.

48 Cf. Ginevra's treatment of patronage in Indo-European society, also on the mythological level, in this volume.

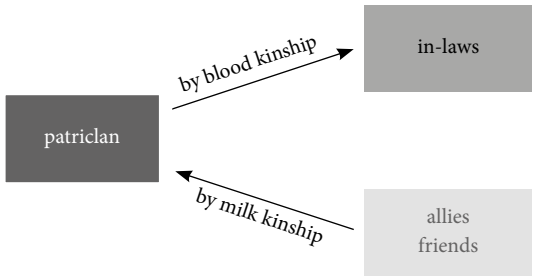

FIGURE 3. Types of fosterage.

The following passage from the jurist Gaius (130–180 AD) on the manumission of slaves (*Institutiones* 1.39) may serve as an example:

> *iustae autem causae manumissionis sunt, veluti si quis patrem aut matrem aut paedagogum aut conlactaneum manumittat.*
> The following are proper causes for manumission, for instance, where anyone manumits his father, his mother, his teacher, or his foster-brother.

While part of these traditions may evidently be the result of individual secondary developments, it still seems possible that a nucleus of fosterage by 'milk kinship' may go back to a pre-dialectal period.

10 Insiders and outsiders

The possibility of inclusion of members in a household who do not strictly belong to the patriclan is further suggested by the vocabulary relating to family members as well as servants described as 'insiders' (cf. Olsen 2020b). Thus, **h₁ni-* + **ĝenh-* is continued in Pali *niyaṃ puttam* 'an in-born son', while the corresponding Vedic *nijá-* is used about servant boys, Avestan *ni-zaṇta-* has the Pahlavi translation *pa xānay* 'born in the house' (Hoffmann 1982: 89–90 and 94, note 45).[49] Several comparable formations are found in Celtic, Greek and Armenian, e.g. **h₁(e)n-ĝonh₁o/ah₂-* > Greek ἔγγονος 'grandson', lit. 'in-born', Old Irish *ingen* 'daughter'

49 *Nijá-*, *niya-* and *ni-zaṇta-* must be remodellings (Hoffmann 1982: 89), perhaps under the influence of **h₁ni-tio̯-*.

(Ogam INIGENA), the Gaulish names *Nitiogenna, Enignus, Andogna,* Armenian *əntocin* 'born within' and *əntani* *'housemate' (*town*, gen. *tan* 'house') → 'relative', pl. 'family', to which one may add Old Church Slavonc **vъnukъ* 'grandson' < **h₁n̥-ou̯keno-*, and Vedic *nyòcanī-* < **h₁ni-h₁e/ou̯k-enih₂-* 'in-dweller' (Olsen l.c.).

In general, the inherited vocabulary reveals that it must have been a matter of the utmost importance to Core-Indo-European societies to distinguish between insiders and outsiders, where **h₁ni-* marks the insiders, **h₁eĝʰs-* and **h₂alio-* the outsiders or the 'others'. Hence **h₁ni-tio-* in Vedic *nítya-* 'own', Gothic *niþjis* 'relative', also pl. *ganiþjos*, Old Norse *niðr* 'relative' and Gaulish *Nitiobroges*, *Nitiogenna*; **h₂alio-* in Gaulish *Allobroges*, Middle Welsh *all-fro* 'banned' and Old High German *eli-lenti* 'from another land', i.e., 'banned, miserable'; and **h₁eĝʰs-* in Gaulish *Egenos* 'foreigner(?)' (cf. *Eni-gnus* above) and Greek ἐχθρός *'outsider' → 'hated; enemy' (: ἔχθος 'hatred'), thus:

Insiders, relatives, allies, friends	Outsiders, enemies
**h₁ni-*, **h₁en(i)-*	**h₁eĝʰs-*
**h₁nitio-*	**h₂alio-*

11 Conclusion

By now, the basic features of (at the very least) Core-Indo-European family structures are well established by linguistic, archaeological and archaeogenetic data. It was patrilineal and patrilocal, and it followed a strict principle of exogamy. However, following the Indo-European expansion throughout Europe and western Asia, certain features concerning the formation of alliances apparently developed and were accentuated.

First of all, the in-laws, the male members of the foreign bride's family played an important role in guest-friendship as well as in warfare. They were 'themselves', men with their own authority, but still 'bound' by obligations, whether in an actual patron–client relationship or on more equal terms. A man's brothers-in-law and sons-in-law were next only to his own brothers – in the Young Avestan *Hymn to Mitra* (29.116–117), the contract is described as "eightyfold between son-in-law and father-in-law, ninetyfold between two brothers, hundredfold between father and son". Institutionalized fosterage of young boys by their mother's brother further strengthened the bond between the two families, but it can only be demonstrated linguistically for the European branches of the Indo-European family.

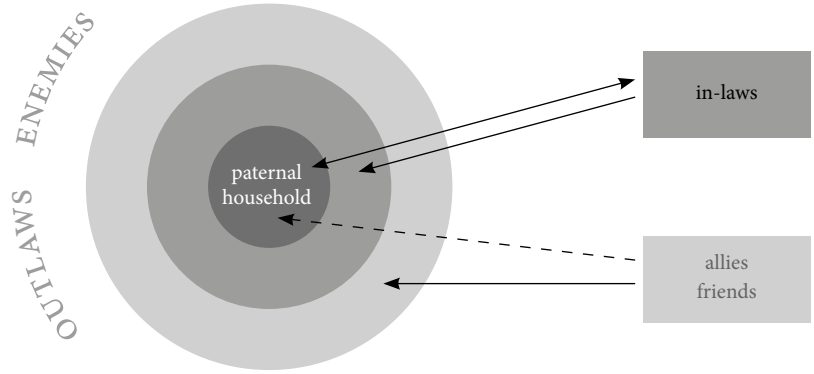

FIGURE 4. Circles of influence.

Next in line comes the circle of the associates, friends and 'followers', also essential in warfare. Perhaps their children were even occasionally included in the patriclans as foster-children, enabling an influential head of family to steadily increase his circles of influence, supporting and protecting the 'insiders' against a surrounding world of 'outsiders'.

Typically such 'outsiders' would belong to potentially dangerous and hostile external societies beyond the influence of the master of the house, his family, allies and friends, but there would also have been an element of actual outlaws who had been deliberately expelled from the community and left to their own fate – had 'become wolves' – as a consequence of severe transgressions against the commonly accepted rules, without which an ordered society would lose its coherence.[50]

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50 The contrast between outlaws or 'lone wolves' on the one hand and Jugendbünde or wolfpacks on the other is treated in Olsen (fc.).

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Indo-European initiation

The Greek contribution

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In this article, I argue for a series of Greek elements, such as age-sets, hairstyle and wandering, that enrich our knowledge of Indo-European male initiation, as presented by Widengren (1969). I also argue for a more differentiated usage of the term *Männerbund* than is often usual in Indo-European studies.

Like in most early societies, Indo-European male youths had to advance through various rituals before reaching social adulthood. Recently, we have seen an important study of the vocabulary of physical 'young adulthood' (Olsen 2020), but the corresponding rituals have received less attention in recent years. Now, most tribal societies proclaim their young men to be adult at a specific moment in time and effectuate this sudden transition by making the boys pass through a special ritual, initiation, which varies in detail from tribe to tribe and from community to community, but which nevertheless shows a remarkable family resemblance in structure and content all over the world. After this transition, the boys are treated as adults and are expected to behave accordingly. The structure of tribal initiatory rituals usually follows the famous triad delineated by Arnold van Gennep (1909): rite of separation, liminality, and rite of incorporation (*rite de séparation*, *rite de marge* and *rite d'aggrégation*).[2]

1 This contribution draws heavily on the Preface to Bremmer (2021), but not without abbreviations, additions of overlooked or very recent references, and a change of perspective. For most Greek passages and themes as well as a bibliography on the scholars mentioned in section 1, see the detailed index in Bremmer (2021). I am most grateful to the editors of this volume for their careful scrutiny of my text.

2 The best survey of tribal initiation of boys and girls is still Brelich (1969: 13–112), to whom I refer for references for the ethnographic practices mentioned in this contribution, but see also Brain (1977 with rich bibliography), Schjødt (2008: 22–49).

There can be no doubt that of all the Indo-European communities, the Greek world, due to its rich and early literary and epigraphical evidence, has given us the most information regarding initiations, with respect to both myths and rituals, whereas the Anatolian, Tocharian and Slavic traditions, for example, have left us virtually no information in this respect. The situation is somewhat better in ancient Rome, where the myths of Romulus and Remus have preserved old traditions; in Persia, about which classical authors have given us numerous details; and in India, where the original structures are often hard to recognise, but persuasively argued for in studies of the Vedic Vrātyas.[3] Among the Indo-Europeans, it is also the Greek world that first received scholarly attention in the study of ancient initiation because of its rich material and long tradition of scholarship. As Widengren (1969) is still the best study of Indo-European initiation, I will take his work as my point of departure, since he overlooked important Greek evidence. Naturally, a detailed investigation of the Greek initiation system would go beyond the limits of an article. Therefore, I will limit myself to a series of elements of Greek initiations in order to illustrate its uniqueness in some ways, but, above all, its importance for reconstructing the Indo-European initiatory rituals. After a historiographical survey (section 1), I will look at: 1. age sets and the contents of early education; 2. fosterage; 3. hairstyle; 4. wandering and groups; 5. defeating a monster; 6. the carrying of a club (German: *Keule*); 7. the receiving of arms; 8. the wedding (section 2). I will conclude with some final considerations (section 3).

1 Historiography

Modern research starts with Heinrich Schurtz's (1863–1903) *Altersklassen und Männerbünde*, published in 1902, which showed the importance of men's societies and men's houses for non-European peoples. At the time, although hardly today, the 1908 publication of *Primitive Secret Societies* by American sociologist and anthropologist Hutton Webster (1875–1955) was also influential, and both books very quickly inspired three studies which, almost at the same time, compared the initiatory systems of Crete and Sparta with those of tribal societies.[4] What is noteworthy, in retrospect, about these early studies is that they all focused on the Dorian areas of ancient Greece, as if the ethnographic parallels on which they drew had nothing to contribute to a better understanding of other parts of

3 Most recently, Selva (2019: 329–352), af Edholm (2021).

4 Harrison (1912), Nilsson (1912), Jeanmaire (1913).

Greece. It is also striking in retrospect that they all concentrated on ethnographic, non-Indo-European, parallels. This was the Indian summer of colonialism, and reports from travellers and missionaries were flooding in thick and fast, providing scholars with a wealth of sources on tribal societies, most of which have disappeared today. After the First World War, however, such anthropological comparisons went out of fashion. Classics turned inwards and social anthropology moved away from the kind of big armchair comparisons found in Frazer's *Golden Bough*, instead adopting the functionalist paradigm and propagating fieldwork as the correct approach to the study of tribal communities.

Eventually, however, the work of Schurtz and Hutton did start to influence students of other Indo-European traditions. This development began in the late 1920s and early 1930s with German and Austrian studies of Germanic and Scandinavian rites of initiation and men's societies.[5] These works were often driven by an idea of Germanic continuity, an over-accentuation of the tie between men's societies and the dead, and sympathy with the Nazist movement. Yet despite conveying ideas that are, to say the very least, politically nefarious, these studies can still offer interesting suggestions and associations (Schjødt 2008: 49–52). In the later 1930s, ideas about initiation and men's societies also began to influence various Scandinavian scholars (Gasche 2016), mainly as a result of their personal contacts with the most influential scholar of this 'school', Otto Höfler (1901–1987). These scholars showed the existence of such practices among the ancient Indians and Iranians, although in doing so they perhaps over-emphasized the importance of men's societies.[6] Geo Widengren (1907–1996, cf. Larsson 2021, Gilhus 2023), in particular, long studied the activities of men's societies, and in 1969 he published a valuable survey of what was known at the time, albeit with an overrepresentation of the Iranian evidence (Widengren 1969). These Scandinavian works also display a certain dependency on Höfler's idea of secret societies (*Geheimbünde*) and the importance of the ancestors, neither of which is really that prominent in the Indo-European tradition as a whole. In the case of Celtic communities, by contrast, interest in these topics did not take root until the latter part of the 20th century, although recent decades have seen the appearance of several fine studies that have concentrated in particular on the tales about the boyhood deeds of Cú

5 See especially Weiser (1927), Höfler (1934); for an interesting study of their ideas in their time and place, see Corssin (2010). For a reasonable and, to some extent, rightly appreciative analysis of Weiser's and Höfler's use of Tacitus' *Germania*, see Meier (1999, with excellent bibliography).

6 Especially Wikander (1938), Widengren (1938: 311–351). Recent evaluations of these studies are found in Ahmadi (2018) and Daryaee (2018).

Chulainn and of Finn and his *fian* (Nagy 1985, McCone 198: 101–154, 2012; but note also Rees 1961: 244–258).

The Indo-European studies were not considered by the two notable scholars who still applied the initiation paradigm to ancient Greece in the pre-War period: Louis Gernet (1882–1962) and Henri Jeanmaire (1884–1960).[7] Both were rather shy men (the latter even a loner) who spent most of their career working at the margins of French academia, and as a result did not achieve any great influence during their lifetimes. However, unlike in his 1913 study, in 1939 Jeanmaire looked beyond the Dorian areas of Greece in a wide-ranging study of Greek initiation rites. In addition to considering Crete, Sparta and Delphi, he also included Athens in his study by focusing on Theseus. Theseus' youth is indeed replete with initiatory motifs, such as his education by his mother's father, his feminine outfit and his sacrifice of a bull,[8] his wandering with Peirithoos, the trip to Crete with the battle against the Minotaur, and the return to become king.[9] The antiquity of the Theseus myth suggests the early existence of rites of initiation in ancient Greece, plausibly going back into the second millennium BC.

The publication of Jeanmaire's book at the beginning of the Second World War did not help to spread his ideas or stimulate interest in initiation in Classical circles. Indeed, it was not until the end of the 1960s that Greek initiation again appeared on the scholarly agenda. In 1968, Pierre Vidal-Naquet (1930–2006) published his article 'The Black Hunter and the Origin of Athenian Ephebeia' (1968, 1983: 151–175), in which he argued that the ephebe was a kind of anti-hoplite. His use of the terms 'cooked' for hoplites and 'raw' for ephebes betrays the influence of Claude Lévi-Strauss (1908–2009), but more crucially, it has been justly argued against him that, instead of a simple opposition between ephebe and hoplite, we should rather think of "the existence of a broad band of youthful status, rather than a polarity between marginal youth and incorporated adult: incorporation and socialisation take place over time" (Ma 2008: 190). Nevertheless, Vidal-Naquet conclusively demonstrated that archaic rites of initiation had survived within Athenian civic practices in fully historical times, even if they had undergone various transformations.

7 Gernet (1968: 154–171; first published in 1936 as 'Dolon le Loup'); many references to initiation also in the posthumously published Gernet (2004).

8 See Graf (1979: 14–18), who shows the close connection of Theseus with the life of the Athenian ephebes.

9 Jeanmaire (1939: 228–378), whose analysis is refined by Calame (2018: 69–139). For Jeanmaire and his book, see Roy (2012), Hugot (2014).

Vidal-Naquet's influential position in French academia and his excellent contacts with the Anglo-Saxon scholarly world contributed to his article becoming perhaps the most famous modern contribution to the study of ancient initiation. It certainly overshadowed the much more wide-ranging study of Greek male and female initiation by Italian scholar Angelo Brelich (1913–1977). Having already shown an interest in initiation in his earlier books, Brelich went on to publish *Paides e Parthenoi* in 1969, still the most detailed study of ancient Greek initiation, albeit from an ethnographic rather than Indo-European perspective.[10] In addition to the now well-studied rituals of Crete, Sparta and Athens, he also persuasively argued that various Greek religious festivals, such as the Hyakinthia and Karneia, incorporated features of older initiation rituals, albeit reinterpreted – analyses that have stood the test of time.

Gradually, the whole of the Greek world was becoming the subject of studies of initiation, rather than only the Dorian areas that had been focused on at the beginning of the twentieth century. Although Brelich had cast his net wide, there were still gaps in his survey, but in recent decades, it has been shown that also Macedonia (Hatzopoulos 1994), Boeotia (Huysecom-Haxhi 2015) and Thessaly (Kravaritou 2018) knew male rites of passage.

In the meantime, Fritz Graf, inspired by the warrior exploits of medieval Swiss youths, had also embarked on a series of studies of initiatory rites in Greece, to which he did compare the Indo-European evidence.[11] For our purpose, it is important to note his attention to the connection between initiation and certain Greek gods, such as Dionysos, Poseidon and Apollo, the latter especially when worshipped with the epithets Delphinios and Lykeios. This is still a relatively unexplored area, even though the connections of gods like Indra and Odin with the last phase of the rites of initiation have often been observed.

Combining both the ethnographic and the Indo-European approach,[12] it seems reasonable to conclude that the proto-Greeks, when arriving in Greece sometime in the early second millennium, brought with them a system of initiation that was related to those that have been identified for the ancient Celtic, Germanic and Indo-Iranian peoples. In other words, we are speaking of an initiatory system that plausibly reaches into the third millennium, if not earlier.

10 All references to the ethnographic evidence are taken from Brelich 1969: 13–112.

11 Cf. Graf (1979; 1985: 89–90, 219–227, 415–417; 1987; 1993: 74, 107–109; 1999; 2002; 2004; 2009: 103–129).

12 In addition to Widengren (1969), see also the not always satisfactory surveys in Das and Meiser (2002).

2 Indo-European initiation: elements for a thick description

Which rites, then, did the early Greeks bring with them? And did they perhaps meet indigenous initiatory rites which they incorporated in their system, or did they develop new aspects of initiation? It is obvious that such questions cannot be answered with any certainty and that our answers can, at best, only strive for plausibility. Moreover, there must always have been variations in the system, depending on place and time, war and peace, health and epidemics, etc. We should also be wary of taking later feudalism as our point of departure as in the investigations by Widengren, whose focus on feudalism made him overvalue it in his treatment of Indo-European initiation, especially since he often reasons back from medieval practices. It is unlikely that the invading Greeks – or Indians and Iranians for that matter – had a highly hierarchical society with a court like that of Alexander the Great or the Achaemenid kings. Rather, we should think of chieftains who were perhaps sometimes powerful, but hardly feudal rulers unless they had taken over older institutions, as clearly happened in the Ancient Near East or developed over time in Mycenaean Greece. Consequently, we should be a bit reticent in our reconstructions and be content with some broad sketches. On the other hand, comparisons of different institutional details can help us to reconstruct older phases, especially if we have examples of these. With these caveats, then, I will briefly discuss various aspects of Greek initiation that will supplement the picture presented by Widengren.

2.1 Age sets and initial training

In many tribal societies, the male youth passed through a system of age sets of varying length. This was also still the case in historical times in Greece (Kennell 2013), where Crete and especially Sparta had reorganised the original system in a militaristic manner, similar to what some native American tribes did.[13] Such an age-set organisation seems to have been present among the Iranians and related peoples as well (Widengren 1969: 36, 91–95), but it is unclear when precisely the actual coming-of-age rituals started. In general, we find that at around 15 or 16, boys began their more adult training, which in Greece comprised weapon

13 See, especially, Lear (2006) about the Crow nation, whose system displayed remarkable similarities with that of Sparta. Nevertheless, their newly constructed rituals still display archaic features (Meier 1998: 142–185).

skills, running, hunting, singing, dancing and, not to be forgotten, cunning. For Greece, it is also reported that oaths, healing (important for warriors, given possible wounds) and sacrifice were parts of the teaching of Cheiron, the mythical initiator *par excellence*.

It is difficult to say to what extent all these elements were shared by other Indo-European communities as, up until now, most attention has been given to the warrior aspects of the initiands. Fortunately for us, the Greeks were also observant of the Persians. Herodotus (1.136) mentions that the Persian boys learned horse riding, archery and truthfulness. Strabo (15.3.18), who probably based himself on earlier sources, adds that they also learn to throw the javelin and glorify the deeds of the gods and the most noble men, and in a neglected passage, Athenaeus (10.434d) mentions that they learn to dance the same way they learn how to ride horses. In the Rigveda, dancing is of course also an oft-mentioned quality of the Maruts (Widengren 1969: 20), whose connection with initiation has been well known since Wikander's (1938) classic study. It is obvious from these reports that we are dealing with upper-class boys, as was probably always the case, except for the militarising societies of Crete and Sparta, who mobilised their whole population to train for their wars. It may well have been the case that the teaching of religious matters was an old element of the earlier education (de Jong 1997: 446–451): Polybius (4.20.8–9) says of the Arcadians, who were generally considered by the Greeks to be the most conservative amongst them (see also below), that they learned hymns about the local heroes and the gods. Such a teaching of secular and religious material via songs was normal in tribal communities, and this will have been the case among the Indo-Europeans too, albeit developed in varying ways. Chapter 23 of Asser's *Life of King Alfred*, where the king's mother Osburh challenges her sons to memorise *poemata Saxonica*, may well be describing a similar tradition.

2.2 Fosterage

A complicating factor in our reconstruction of the early stages of Indo-European initiation is the role of fosterage. Widengren rightly dedicated a whole chapter to this institution, which he discusses in detail for the Ossetes, Armenians and Persians (Widengren 1969: 64–95). He also notes its occurrence among the ancient Germanic and Celtic peoples, although among the latter the material is much richer than he thought (Kühlmann 2017; O'Donnell 2020). However, Widengren overlooked the oldest Indo-European evidence, which is to be found among the

Hittites and in Homer, where we hear of heroes being educated not by their own parents but in the house of their maternal grandfather (*Iliad* 11.221–224), as well as in vase paintings from as early as the seventh century BC showing Peleus handing over his baby son to the Centaur Cheiron (Stark 2012: 150–155). The education of Macedonian elite boys at court is well attested and continued among the Hellenistic successors.

According to Widengren (1969: 101), the Indo-European evidence supports his idea, developed from the Iranian material, that "die Erziehereinrichtung sich aus der Erziehung der Jungmannschaft … innerhalb eines bündlerischen Rahmens zu einer feudalen Sitte entwickelt hat". However, the Greek evidence does not support the latter, nor does the rich ethnographic evidence for fosterage (Steinmetz 1928: I 1–113), and Greek fosterage did not always develop into a feudal system. Admittedly, fosterage could be used for feudal aims and purposes, but it is not true that it always developed "innerhalb eines bündlerischen Rahmen" ("within the framework of a *Männerbund*"). In fact, we should distinguish between kinship fosterage, which often took place within the maternal family, as among the Hittites and other Indo-European societies (Bremmer 1976), and alliance fosterage, which helped to bolster feudal relationships, as happened at the Macedonian and Sasanian courts. The case of Achilles, though, is neither an example of kinship nor alliance fosterage. Here, if anywhere, one could think of a "bündlerischer Rahmen", as the Centaurs plausibly reflected a men's society that supervised initiations (Bremmer 2021: 45–63, Zarkadas 2021). It seems that fosterage usually ended when the youths entered their final stage of initiation.[14]

2.3 Hairstyle

It is unclear how the beginning of the final stage of initiation was dramatised. One would expect some kind of ritual act, but there does not seem to be much evidence for it. We can, however, be pretty certain that a change of hairstyle was part of it: such a change is well attested in the ethnographic evidence and likely also applied among the Indo-Europeans. Widengren (1969: 19, 36) has drawn attention to the various hairstyles of Indo-Iranian peoples. Not all his material is relevant, such as his observations about Assyrian soldiers, but he interestingly

14 For the connection between fosterage and the maternal family in Greece, as well as more evidence regarding the ancient Germanic peoples than given by Widengren, see Bremmer (2021: 205–235).

points to a passage in Faustus of Byzantium (fifth century AD), which mentions that "in the fashion of children, in accordance with the religion and rule of Armenia, the youth Artawazd's head was shaven with a long braid left free" (5.43, tr. Bedrosian). Widengren rightly concludes to a specific hairstyle for the (an?) age set of the male youth in Armenia and compares it to similar hairstyles of the Huns and the Cossacks.[15] We do not know Artawazd's age, but he clearly was not very young, as somewhat later in the text he is described as a "handsome, robust, beardless youth". It escaped Widengren, however, that Greeks must have had a similar hairstyle at one point, as the Kouretes, the exemplary young men of early Archaic Greece, had a hairstyle that was called both πλόκαμος 'braid' and σκόλλυς, explained by the ancient commentators as meaning the same as κορυφή 'top, summit', a hairstyle also associated with other young heroes like Theseus and Hector (Bremmer 2021: 17–20). In an inner-Greek development, the hair, when shaven off at the entry into the last stage of initiation, was often dedicated to rivers, who were seen as promoting the growth of youth (Leitao 2003; Pilz 2019). As this hairstyle was adopted at the transition of boyhood to adolescence, the crest of hair was probably shaven at the end of the initiation.

2.4 Wandering and group

A famous passage in Strabo (10.4.21), which he derived from the historian Ephoros (4th c. BC), relates the pederastic relationship between an aristocratic adolescent and a somewhat older youth at the end of the Cretan initiation. Here, I would like to focus on a usually neglected detail of this account. We hear that the upper-class couple spent some time in the countryside feasting and hunting but were also accompanied by the friends of the adolescent, who were evidently lower in rank. This ritual took place in historical times, when Crete was already properly divided up between numerous cities. There certainly was some wild countryside, but it must have been impossible to wander off very far.

Now if we take this combination – initiator/mentor, an upper-class adolescent, the latter's friends and time spent in the countryside – as a kind of initiatory constellation, we can see that we find the same combination in the famous expedition of the Argonauts, where Jason, accompanied by maternal uncles, clearly his initiatory supervisors, and a group of about 50 other adolescents leaves abroad to procure the Golden Fleece, returns and becomes king. This is a myth and thus

15 Other possible examples can be found on Wikipedia s.v. 'Mohawk hairstyle'.

dramatised in comparison with the Cretan ritual, but the main elements are all there – in fact, the initiatory background of the Argonautic myth has often been recognised (Bremmer 2021: XVII). The number of his accompanying comrades hardly received any attention in earlier discussions, but Widengren (1969: 88–90, 99) noted that 50 was the standard number for groups of youths in Celtic, Italic, Persian and Slavic traditions. The Argonauts, as well as other Greek examples, show that this number was prevalent in early Greece too (Bremmer 2021: 132–133); it could even explain the origin of the 'fifty-oared' ship, the penteconter, which was used for representative and military purposes in the archaic period and later (Bremmer 1990).

The stay outside civilisation could take various forms. In Greek mythology, we also have examples of two males wandering, one slightly older than the other, as in the cases of Peirithoos and Theseus, Pylades and Orestes as well as Silenos and Dionysos. There are striking parallels for such dual wanderings in Germanic traditions, witness the cases of Isung and Vildiver, Ise and Orendel, Eisenhans and Bärenhäuter, Gigas and Hythinus, which all seem to point to motifs of initiation, though refracted through different lenses (Bremmer 2021: 102). In the Cretan case recorded by Ephoros we also saw a mentor with an initiand, the latter being accompanied by a group of lower-ranking friends. We may wonder if in myth, epic and fairy tales these friends have not been left out, or if their presence was not simply abandoned in later developments of this motif.

Another form of this stay outside civilisation is wandering. Widengren (1953: 59–62, 1969: 86–92) has noted groups of wandering Iranian and Indian youths, and the Irish *fianna* spent their youth hunting and roaming the woods. In the earlier Middle Ages the *iuvenes*, the sons of nobility, were wandering through the countryside, and in Greece we have the example of Orpheus who, with a group of Thracian males, roamed the countryside (Bremmer 2021: 21, 86).[16] In none of these cases do we hear of a dual leadership, but it is suggestive of another archaic feature that the Greek expedition against Troy was led by Agamemnon and Menelaos, Rome was founded by Romulus and Remus, the Angles and Saxons invaded England under Hengist and Horsa, and the Vandals under Ambri and Assi invaded the island Scadanan, where the Winnili were also ruled by a duo, Ybor and Agio (*Origo gentium Longobardorum* 1) – not to mention the dual

16 A remnant of initiatory wandering could also be behind the Greek custom sending adolescents as delegates to sanctuaries and festivals to attend, view, and spectate (hence the word θεωροί) on behalf of the city, as persuasively argued by Rutherford (2004). Note also Harðarson (2023) for a possible early name of such Indo-European groups of youths.

Spartan kingship and the two Roman consuls. This deserves further investigation, as it seems absent from the Indo-Iranian traditions (Bremmer 2021: XX). Could it be that this dual leadership developed from the combination of mentor and initiand?[17]

2.5 Defeating a monster

Jason and his Argonauts must fetch the Golden Fleece, which is guarded by a dragon. The task fits a series of Indo-European traditions in which the hero defeats a monster before reaching proper adulthood. One only need to think of Oedipus defeating the Sphinx, Theseus the Minotaurus, Perseus Medusa, Siegfried the dragon, or Cú Chulainn killing Culann's dog; Wikander (1941), Widengren (1969: 20–21), and Saadi-nejad (2023) have also pointed to dragon-slaying Indo-Iranian heroes and warrior gods, such as Θraētaona who slays Aži Dahāka, Kərəsāspa who slays Aži Sruuara, and Indra who kills Vṛtra. Given that dragons do not exist, it is clear that these myths and legends dramatise a *Kraftprobe* 'trial of strength'. Fortunately, we have a fine example of how to imagine this trial in reality. The Hellenistic author Hegesandros (*apud* Athenaeus 1,18a) reports that by the Macedonians a man could not recline at dinner – that is, join the adult males – until he had singlehandedly killed a boar during the hunt. Here, I suggest, we have a basis for the myths that dramatise the demonstration of strength. Apparently, it was already part of the early Indo-European tradition that one was considered to be a proper adult only after having shown one's strength by killing a dangerous animal or, as happened among the Germanic Chatti (Tacitus, *Germania* 31), an enemy – an opponent who became dramatised as a monster in fictional accounts.[18]

17 It is true that in the mythical/legendary traditions, the dual leadership often consists of brothers, as Riccardo Ginevra points out to me, but this may well be myth/legend intensifying the close connection between the two leaders.

18 Although the Greek evidence is much older, this was also already seen by Weiser (1927: 73–74), whose perceptive study still remains valuable, the more so as it is not ideologically vitiated like Höfler's work.

2.6 The club/*Keule*

Widengren (1969: 61) has argued that the members of *Männerbund* probably wielded the club as their main weapon. It is true that the club is typical of the Indo-Iranian dragon slayers (Wikander 1941: 76 note 1; Widengren 1969: 19–20), but the matter clearly deserves further investigation, as the Swedish scholars have not looked at this aspect in any detail. Moreover, they could adduce only one passage for the club among the ancient Germanic peoples by comparing the club-bearer in a notice from AD 1091(!) about the *familia Herlechini* in Ordericus Vitalis (*Historia Ecclesiastica* viii.19, ed. Chibnall) and overlooked the Irish evidence (Hurley 2007). In this case, though, we are lucky and blessed with a new discovery. In 2015, an Arcadian inscription on a bronze tablet that survived in six fragments was published, recording festivals of an almost Panarcadian amphictyony. It dates from 475–450 BC and was probably deposited in western Mount Lykaion.[19] The inscription, to which we will come back in the next section, plausibly mentions a τέμενος of the hero Areithoos Korynitas (lines 3 and 7), whose epithet has been convincingly explained as 'club bearer' (Mahoney 2020). Now this mythical figure already occurs in Homer, where the old Nestor has an interesting tale about him (*Iliad* 7.132–157). He describes how in his youth he killed a certain Ereuthalion, who had received his armour from Lycurgus when the latter had grown old; Lycurgus, in turn, had gained that armour in his youth by killing "lord Areithoos, noble Areithoos, whom men and women with beautiful girdles called by the name Korynetes ('Club man')" (7.137–139: Ἀρηϊθόοιο ἄνακτος, δίου Ἀρηϊθόου. τὸν ἐπίκλησιν κορυνήτην ἄνδρες κίκλησκον καλλίζωνοί τε γυναῖκες, tr. Mahoney) using trickery. The anecdote is one of those vignettes which Homer occasionally gives in the *Iliad* by referring to little-known sagas from the Greek mainland that most probably derive from sources dating back at least to the time before the Greeks started to emigrate to Aeolia, Ionia and the islands at the end of the second millennium BC.[20] In other words, we have here a reference to a mythological Club-man whose tradition must go back to the Mycenaean era.

Now another striking aspect of this legend is that Nestor was very young when he killed Ereuthalion, as was Lycurgus when he slew Areithoos. Clearly, we

19 For text, translation, and commentary, see Carbon *et al.* (2016, no. 223). For date and place, see Minon (2021).

20 For these vignettes, see Hoekstra (1981: 54–66). Jost (2021) also discusses the case of Areithoos and Lycurgus, but she does not differentiate between pre-Homeric Arcadian heroes and those later appropriated, such as Odysseus and Aeneas, who originally did not belong to Arcadia.

are supposed to think of the armour and its original hero as living long, long ago, but also that the victors in these battles were very young. We should also note that Lycurgus slew Areithoos with a trick, and in the Arcadian inscription the term 'complete trickery' (line 8: Minon 2021: 162–167) also occurs close to that of the mention of the τέμενος for Areithoos. The connection is probably not arbitrary as cunning and trickery were a recurring element of Greek initiation (Bremmer 2021: 11, 23). In Homer, the armour of Areithoos has been 'updated', as Ereuthalion wears his armour on his shoulders, but originally Areithoos must have been armed with a club only, given his nickname. It seems plausible to conclude that the Arcadian inscription suggests a connection between initiation and the worship of the mythical Club-man Areithoos.

There are two more elements to add to this Greek dossier. Firstly, when around the middle of the sixth century BC the Athenian aristocrat Pisistratus grabbed power, our somewhat conflicting sources relate that he requested a bodyguard consisting of 400 very young men (Diogenes Laertius 1.66: τοὺς νεωτάτους). In the end, according to Plutarch, it was proposed to give him a group of 50 (see above) who were 'club bearers' (*Life of Solon* 30.2: κορυνηφόροι). It seems that club-bearing is associated here with young males who function as a kind of retinue.

Secondly, not only is Heracles' standard weapon a club, but the biography of this greatest of all Greek heroes is also full of initiatory details, such as his change of name, his upbringing among shepherds, his supervision by educators, his sexual activities, his asocial behaviour, his wandering (Bremmer 2021: 107–123), and his fits of madness, which I would now explain as memories of the *furor heroicus*, albeit reinterpreted in later times when this *furor* was no longer witnessed in battle. It seems, then, that a club was part of an early stage of Greek initiation and, possibly, also of early Indo-European initiations.

2.7 Receiving arms

In several passages, Widengren has paid attention to the receiving of arms at the end of the initiation. He mainly focused on the girdle and its place in the acceptance into the retinue of the Iranian kings (1969: 22–29), which he connected with the ritual of *cingulum dare* during knighting in earlier medieval feudalism (1969: 49–50, 60–61).[21] Apparently, he was unable to find any early material in

21 Widengren's analysis is no longer up to date; see Lieberman (2015) for a recent survey of the evidence.

his Indo-Iranian evidence, just as he could not find any for the entry into the last phase of the initiation. However, he noted that amongst the ancient Germanic peoples "in the midst of the assembly one of the chiefs or the father or relatives equip the youth with a shield and a spear" (Tacitus, *Germania* 13). The notice shows that the *Waffenleihe* 'giving of the arms' was ritualised, took place, presumably, at the conclusion of the initiation, and was a matter of public concern and importance.

We also find early evidence of this connection between the end of initiation and the receiving of arms among the Greeks. In Thebes, the lover presented his beloved youth with a panoply when he registered as a man (Plutarch, *Moralia* 761b), whereas the young Cretan aristocrats received a military suit from their lover after the stay with their friends and mentor in the countryside, clearly at the moment that their initial training had come to an end. Moreover, they also received a special piece of clothing to mark the end of their initiation (Ephoros *FGrH* 70 F 149) and were now called 'illustrious' (McClay 2021).

The new Arcadian inscription is also informative in this respect. Among its prescriptions we find (line 6): κόρϝον, ἐνϝότοι ϝέτει, ἐξάγεν ἀσπίδα, ἀκόντιον, φοινικὶς, ξίφος, K[..?... "let a youth, in the ninth year, bring forth: a shield, a small javelin, red vestments, a sword, […] (unintelligible)". As has been plausibly argued (Mahoney 2020), we find here the *Waffenleihe* of the Arcadian youths. However, we should note that the giving of arms is concomitant with a special dress, which will mark out the young men from the socially inferior male Arcadians. This was evidently also the case with the young Cretan aristocrats (above), but it is interestingly also mentioned in regard to Heracles, who received a garment from Athena together with weapons from other gods (Apollodorus 2.4.11), presumably also at the end of his initiation.

The early date of the Arcadian inscription may help us to solve another problem. As we have seen, in addition to the presenting of arms, the inscription also mentions 'red vestments' (φοινικίς), which plausibly were the new, special clothes of the newly initiated adults. Now, already in the seventh century BC, the first month in Corinth was called Phoinikaios, as we now know from the Antikythera Mechanism, but its name has been unexplained until now. As Greek months are usually named after a festival, the name presupposes a festival Phoinikaia, which will have been 'supervised' by Athena, who in Corinth had the epithet Phoinike. Given that the first position in the year would perfectly fit the end of initiation and the arrival of new members of adult society, one may wonder if in Corinth the new adults also received a 'red vestment'. Athena was closely connected with the Corinthian hero Bellerophon, which would make her appropriate for a di-

vinity connected with initiation.[22] However this may be, it is clear that the early Greeks concluded the initiation of their youth by giving them proper weapons and a special garment.

2.8 Wedding

Lily Weiser (1898–1987) observed that the wedding is usually the concluding stage of the initiation in Germanic *Sagen* and fairy tales (1927: 71). This is also clearly the case in Greek mythology, where, after the defeat of a monster, Perseus marries Andromeda, just as Oedipus does Iocaste after conquering the Sphinx, and Jason weds Medea after returning with the Golden Fleece. In other words, in these myths there is a common connection between marriage and the end of the initiation. However, *Sagen* and myths usually focus on a single hero, and they should not be confused with historical reality. As in early Greece the boys were initiated in age sets, it seems likely that they also married in groups. Indeed, we do hear that this was the case in Crete, Samos and the Troad, and the collective marriages of the Danaids and Proitids in myth suggests the antiquity of such marriages (Bremmer 2021: xvii). It would seem likely that such collective marriages once took place among the Indo-Europeans, as for Rome we have the legendary wedding of Romulus and his youths with the Sabine maidens, but I have been unable to find other close parallels.[23]

3 Final considerations

What conclusions can we draw? Looking at the material discussed, it struck me again how difficult it is to evaluate the historical evidence. Although myths and *Sagen* constitute an important part of our relevant sources, our task is made much more difficult by the fact that there is no straight line from myth to ritual, and we have to continuously keep in mind that narratives have their own laws and logic. Narratives can even contain initiatory motifs without reflecting the whole of the initiatory ritual or focus on specific elements, such as the birth of a hero or his stay in the wilderness. In the end, we should never forget that myths were meant

22 For the evidence regarding the month Phoinikaios, Bellerophon and Athena, see Ziskowski (2019).

23 But see Kim McCone's contribution to this volume.

to tell a good story, with which the poets or other narrators had to entertain their listeners and readers, but were not necessarily a true reflection of the ritual process in historical reality. It is therefore nearly always necessary to compare the ethnographic and historical evidence with the world of myth and *Sagen* in order to see if the latter simplifies, distorts or exaggerates the actual ritual.

But even with these caveats, my survey clearly shows that the Greek evidence has been wrongly neglected in Widengren's survey of Indo-European initiation, its wealth of material easily surpassing that of the Indo-Iranian and Germanic sources and being, on the whole, much earlier than that of the ancient Germanic and Celtic peoples. It should also be clear that this brief survey has not exhausted the evidence. More could be said about the education among shepherds (a motif we find quite often in Greece, but also in Persia and ancient Rome, cf. Bremmer 2021: 116–117), the metamorphosis into a wolf (as we hear of in ancient Arcadia), the *furor heroicus*,[24] and other motifs, but those subjects would require a separate study.

Taking all this into account, we can sketch the contours of male Indo-European initiation as follows: after a period at home or being fostered, the youths entered a period of training, the beginning of which was signalled by a change in hairstyle. In the latter part of this period, the youths had to spend a time away from their home area either in more or less egalitarian groups or as part of the retinue of a prince or son of a chieftain. At the end of this period, they had to show their strength and courage by killing a dangerous animal or an enemy. After that proof of their manhood, they received proper weapons and got married.

It is obvious that not all of these parts of the initiation received equal attention in the various branches of the Indo-European world. It is also not wholly clear if all parts were strictly Indo-European or whether some elements were perhaps taken over from the previous population. The Greek evidence raises various questions in that respect. For example, seemingly absent from other Indo-European traditions, or at least not mentioned, a men's house is an institution well attested in the ethnographic evidence from Greece: in Crete we find the ἀνδρεῖον, literally indeed the 'men's house' (Whitley 2018), but a much more widespread form of the men's house in Greece must have been the λέσχη, which was closely connected to Apollo and probably went back to Mycenaean times (Bremmer 2008: 155–168, Marginesu 2001). This is not the only Greek case where we find an element in the initiatory system that has parallels in the ethnographic evidence but not in Indo-European traditions. Another famous case is transvestism, which is fairly

24 For the Arcadian werewolves, see Bremmer (2019: 358–370); the material for the Germanic *furor heroicus* has now been collected by Samson (2020).

widely attested in Greek myths and rituals, already in the case of Achilles, who was raised as a girl at the court of king Lykomedes of Skyros (another early case of fosterage!) before joining the Greek expedition against Troy (Bremmer 2021: 5, 125–141). One might suspect that both these cases were taken over from the indigenous populations. On the other hand, some elements may have been later Greek developments, such as swimming and pederasty. The former was probably introduced when the proto-Greeks reached the coast of Greece and can be found in various Greek myths and visual representations (Hölscher 2021), but not, as far as I know, in other Indo-European traditions. Pederasty was once postulated by me as an Indo-European tradition in youthful enthusiasm (Bremmer 1980), but it now seems clear that this was a relatively late development in early first-millennium Greece (Bremmer 2021: 177–204).

Last but not least, the use of the term *Männerbund*, as employed by Höfler, Wikander, Widengren, and others, is confusing and should be reconsidered. We must keep in mind that the stay outside civilisation could lead to different outcomes. The most normal one was probably the return into the community. It is also possible that the youths entered the service of a prince or chieftain for a while, as presupposed by the Argonauts. However, after their return, the participants of that expedition went home, just as the Greek heroes did after the destruction of Troy. Such temporary retinues are also attested in Classical literature, for the Celts and ancient Germanic peoples (Bremmer 2021: 241–247). Originally, then, it was especially the youths that were no longer part of the family but had not yet established themselves as head of an independent family, who occupied a marginal position in the tribal societies. In these cases, though, they did not really constitute a *Männerbund* as a separate organisation within a larger whole.

On the other hand, such a wandering group of youths could also move elsewhere and become the dominating political factor in an area away from their proper homeland. This seems to have happened with the Near Eastern *maryanni*, the warrior aristocracy of the Mitanni. The presence of the Kouretes and Molpoi in Ephesus and Miletus as important political groups suggests a similar development for the Greek colonisation in Western Asia Minor. The Italic custom of the *ver sacrum* is probably also related to such wandering groups of male youths, but with the difference that the Italic youths were actually prohibited from returning home. Once established as a political factor, each of these groups became a real *Männerbund*, and their descendants could long retain this political dominance, as we can observe in the Near East, Greece and Western Asia Minor (Bremmer 2021: xv). In the end, it is not implausible to see initiation as a (or the) driving force in the expansion of the early Indo-Europeans.

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(Proto-)Indo-European age-based male social hierarchies and groupings

Age-grades, sodalities, coevals, age-sets and the origins of Rome's *curiae* (including the *curia* 'senate-house')

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Maynooth

This study argues for lifelong associations of coevals termed 'age-sets' as a feature of Proto-Indo-European[1] social organisation, taking as its starting points (a) a PIE social system of three successive age-grades and (b) their frequent combination with age-sets. After (1) a general introduction and discussion of methodology, it focusses upon: (2) the junior grade's 'wolfish' bachelor sodalities; (3) age, initiations and other conditions of entry and exit conducive to the formation of adult age-sets; (4) Rome's 'wolfish' foundation myth and its implications; (5) coevality as an ideal attribute of sodalities in various IE cultures, the *homēlikiē* 'same-age-group' as a youthful bond maintained into adulthood and old age in the *Odyssey*, and the progress of *hēlikiai* 'age-groups' admitted to citizenship together in a given year through a cycle of 42 successive annual stages in ancient Athens; (6) the Roman antiquarian doctrine of 30 original *curiae*, Festus' statement that there were actually 35, and a probable original system of age-sets based on a multiple of 7 like the Athenian *hēlikiai*. In conclusion (7), the bonds forged between members of a (P)IE sodality were continued in adult life by age-sets calculated to enhance their members' social and military cohesion and clout.

1 'Proto-Indo-European' is used here in its traditional vaguer sense rather than as a stage specifically including Anatolian and opposed to later CIE 'Core IE' excluding it. This, however, is a matter of convenience, not a denial that the Anatolian branch represents a particularly early offshoot.

1 Preliminaries

1.1 Basic (P)IE social structure and associated vocabulary

A case for the Proto-Indo-European social system and associated vocabulary summarised in Figure 1 has been made in three earlier studies. The first (McCone 1987) posited three post-pubescent age-grades along with a dichotomy between a **korḭos* '*Männerbund*, sodality' of vagrant warlike bachelors likened to wolves and a **teu̯-tah₂* 'kingdom' of adult married soldier-farmers who, if they lived long enough, retired from military duty as elders with advisory and judicial functions. The second (McCone 1998) was concerned with the PIE words for 'king' and 'queen'. The third (McCone 2020) posited basic social stratification reflected in a terminological opposition between three upper-class [U] age-grades and generic or lower-class [G/L] counterparts (118–121) integrated by a sacral king (104–115 and 127–130), whose queen was held to be the mortal surrogate of a goddess (160–163), most likely the radiant and erotic **H₂au̯s-ōs* 'Dawn' (150–157), bound to him in a *hieros gamos* or 'sacred marriage' (131–138).

1.2 Social structure, ideology and mythology

The nature of much of the evidence adduced below raises the question of the relationship between social structure and mythical or ideological patterns. Benveniste (1969: 279–292) maintained Dumézil's original view that an Indian-style tripartite hierarchy of priests, warriors and farmers/herdsmen was a key feature of PIE social organisation, despite the lack of pertinent reconstructed PIE terms. Meanwhile, Dumézil himself (e.g., 1968: 15) had shifted to the position that "tripartite ideology" did not necessarily mirror social structure. Thus encouraged, Campanile (1990) declared it an "Indo-European mindset" unaligned with an "essentially egalitarian society" (40–41) paradoxically presided over by a sacral king (42–49). Schlerath's (1987) doubts about the feasibility of reconstructing PIE social structure did not extend to mythology, to judge from his argument (Schlerath 1954) for PIE belief in two hounds attached to the realm of the dead, and his telling criticisms (Schlerath 1995 and 1996) of Dumézil's model and methods did not rule out the reconstruction of PIE ideology *per se*.

The uncoupling of mythology and ideology from social organisation creates a false dichotomy because, as the founder of the so-called 'functionalist' school of

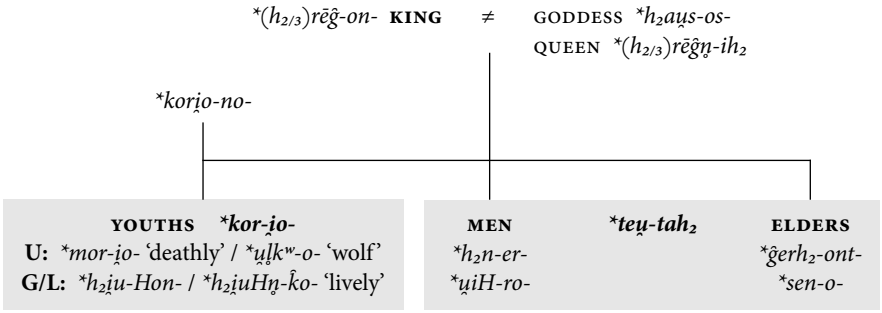

FIGURE 1. A model of basic PIE social organisation and terminology.

anthropology put it, "an intimate connection exists between the word, the mythos, the sacred tales of a tribe on the one hand, and their ritual acts, their moral deeds, their social organization, and even their practical activities on the other" (Malinowski 1926: 11). This principle is retained by the 'structuralist' approach pioneered by Lévi-Strauss, but with a crucial caveat against assuming "that a full correlation exists between the myths of a given society and its culture" and "that whenever a social pattern is alluded to in a myth this pattern must correspond to something real and attributable to the past if, under scrutiny, the present fails to offer an equivalent" rather than presenting "the pattern of a nonexistent society, past or present" (Lévi-Strauss 1978: 203–204). Consequently,

> it is always rash to undertake, as Boas wanted to do in his monumental *Tshimshian Mythology*, "a description of the life, social organization and religious ideas and practices of a people … as it appears in their mythology" … The myth is certainly related to given facts, but not as a *representation* of them. The relationship is of a dialectic kind, and the institutions described in the myths can be the very opposite of the real institutions. This will always be the case when the myth is trying to express a negative truth. (Lévi-Strauss 1978: 172)

The first citation is from Lévi-Strauss's study of "four Winnebago myths" (1978: 198–210), one of which contradicts actual Winnebago norms. The second is from his celebrated analysis of the Tshimshian (British Columbia) "story of Asdiwal" (1978: 146–197), which points out that the Tshimshian rule of patrilocal residence with the husband's kin after marriage is contravened by the hero: Asdiwal was not only born where his widowed mother lived with her widowed mother but also

went on to reside with his wife's family in three variously problematical matrilocal marriages (1978: 155–157). Furthermore, the succession of his son Waux to Asdiwal's hunting grounds in another version of the myth (1978: 165–166) is at odds with the Tshimshian matrilineal system of kinship and inheritance whereby a male would ultimately succeed not to his father's but to his maternal uncle's possessions and prerogatives (1978: 168). The basic point is that "Waux's paternal inheritance no more reflects real conditions than do his father's matrilocal marriages" (Lévi-Straus 1978: 172).

It seems, then, that mythical and social patterns do indeed correlate, but not always directly or even straightforwardly, on account of inversions and other transformations liable to be generated by a myth's own internal logic and 'dialectic' interaction with social and other realities. In structuralist terms, "myth … is an institutionalised system of symbols … which, like language, conveys various modes of classifying facts … Thought takes shape by expressing itself symbolically in and through myth as it does in and through language" (Vernant 1980: 222).

The central social role of kinship is complemented by the practice of exogamy, which promoted relationships beyond the immediate kin. Benveniste (1969: 205–276) and others have argued cogently that early IE systems of kinship were patrilineal and that a patrilocal PIE pattern of marriage follows from the notion of a husband 'leading' a wife as well as the contrast between plentiful reconstructed terms for her in-laws and next to none for his. A matrilocal counterpoise was, however, probably provided by sending young sons away to be fostered until puberty by the head of the mother's kin, as argued by Bremmer (1976; cf. McCone 1992 on P/WIE *$*h₂au̯$-(*o*)*n*- 'maternal uncle').

Asdiwal's marriages and patrimony or the occurrence of socially taboo incest in the myths of many peoples are typical enough instances of mismatches between mythical and normal social practices. These considerations militate against an unduly literal approach to features of IE myths, especially if they contradict social norms inferred from linguistic and other evidence. Asdiwal's matrilocal marriages and his son's patrilineal inheritance could be discounted as genuine Tshimshian institutions because of their incompatibility with that people's practice of patrilocal marriage and matrilineal inheritance. In an IE context, matrilocal residence and matrilineal succession confined to myth or legend would be similarly suspect as actual institutions in the face of good evidence for patrilocal marriage and patrilineal kinship.

Royal succession through marriage to the king's daughter or the former king's wife appears in the myths and legends of a number of IE peoples, including the

ancient Greeks (Finkelberg 1991). These have been discussed elsewhere (McCone 2020: 137–143) with a view to establishing a PIE prototype featuring either her own choice of a stranger from afar in unexpected preference to local claimants, or her marriage to an outsider who alone passed a test set by her or, more usually, her father. Taken at face value, such narratives imply a matrilineal transmission of kingship by matrilocal marriage diametrically opposed to the patrilineal and patrilocal rules otherwise governing inheritance and matrimony. Moreover, as observed by Finley (1967: 101) with regard to Penelope, a bride's own choice of a husband destined to be her people's next king involved placing this momentous "decision in the strangest place imaginable, in the hands of a woman" in "a solidly patriarchal society".

Significantly, the *Odyssey* itself offers a reality check by presenting parentally arranged patrilocal marriages as the desirable norm: the goddess Athene herself (in Mentes' guise) strongly recommends that Penelope return to her parental home so that her marriage can be arranged along with fitting bridal gifts (*Odyssey* i, 275–278); Telemachus reproaches the suitors with their failure to visit her father's house so that he could betroth her to the man of his choice (ii, 50–58); Menelaus is encountered when about to send his and Helen's daughter, having betrothed her to Achilles' son, "to the illustrious city of the Myrmidons over whom he ruled" to wed and live with him (iv, 3–9); and Odysseus' own sister had been given in marriage by her parents in return for bridal gifts and sent to live with her husband on the larger neighbouring island (xv, 366–367).

Even the two exceptions to this pattern constituted by Nausicaa and Penelope were not only complementarily partial but also unfulfilled. The nubile Nausicaa returned to the Phaeacians' city alone explicitly in order to avoid any suggestion that she had dishonoured her local admirers by herself choosing the stranger Odysseus as her husband (vi, 276–284). However, once Odysseus had made it to the palace, her father had no qualms about offering him her hand in marriage, property and a home among them, should he choose to stay (vii, 313–316). This offer, then, combined a king's choice of his daughter's husband with the latter's matrilocal residence.

Conversely, an unconventional own choice of husband was combined with conventional patrilocal residence by Odysseus' parting instructions that, if he did not return from Troy, Penelope should wait until Telemachus had grown a beard, then choose her own husband and leave the family home to go and live with him (xviii, 257–271).

Supernatural interventions such as dreams or talking geese may pave the way for the royal daughter's choice of someone whom she has never met before as her

husband (McCone 2020: 139 and 150), but another reality check is built into two key narratives of this type from ancient Iran and Gaul recorded by Athenaeus (xiii, 575 and 576a–b; McCone 2020: 138–140). In both, the king's daughter is due to signify her choice of husband by presenting a drink to one of the local guests invited to a feast by her father, but instead she bestows this upon a foreigner who has arrived unexpectedly and, in the Iranian tale, also secretly in disguise owing to the king's prior rejection of his suit. These two accounts clearly represent the girl's selection of a spouse from distant parts as an unforeseen and hence abnormal outcome. The regular preference of an uninvited outsider over the insiders approved by the father in this mythological scheme not only lacks verisimilitude but also highlights the riskiness of allowing a daughter to choose her own husband. Although perhaps resorted to on occasion, a test or tests seem more likely to have been a mythical analogue of the proven prowess and ability expected of a would-be king than a rather crude and, not least in the myths themselves, unpredictable method of determining the next ruler.

However implausible in practice, royal succession in the gift of a king's daughter or wife would make good sense as the mythical pendant of a core item of PIE belief for which there is good evidence (McCone 2020: 127–137): a sacral kingship vested in a *hieros gamos* 'sacred marriage' between the king and a goddess that enabled him to channel divinely mediated benefits into his kingdom.

That said, an actual institution of elective kingship may also be reflected by the myth's basic scheme of a royal succession not restricted to a direct descendant (typically a son, but not necessarily the oldest) or, failing that, close agnatic relative (e.g., a paternal uncle or nephew) of the previous king. Such an arrangement would, at least up to a point, follow similar rules to those governing inheritance in general among various IE peoples, namely division of a man's estate between his direct male descendants or, if he had none, his closest surviving agnatic kin.[2]

2 For instance, among ancient Germanic peoples, the heirs to an estate were the children (*liberi*) of the deceased or, failing them, his brothers (*fratres*), paternal uncles (*patruī*) and maternal uncles (*avunculī*) in that order according to Tacitus (*Germania* 20). In early Irish law, "the division of an inheritance (*orbae*) … is made by the youngest inheritor (*comarbae*), but the eldest gets the first choice, the second eldest the second choice, and so on. The youngest gets the last choice, so it is in his interest to divide the property into equally valuable portions … If a man predeceases his father before the division of the inheritance [and] if this man has sons, they are given the share which would have fallen to him … If a whole kin-group … becomes extinct … the property is distributed among a wider circle of the kin" (Kelly 1988: 102–104). When someone had died intestate, Roman law (e.g., Gaius, *Inst.* iii, 1–16, on the authority of the Twelve Tables) enjoined the division of his estate equally among his natural heirs (*sui heredes*),

However, whereas a typical estate could be divided, the essential indivisibility of kingship is, for example, given expression by the designation of just one of a king's five sons as his heir after succeeding where the others had failed in another sovereignty myth of probable PIE provenance (McCone 2020: 143–149 and 161–162), which is discussed briefly in section 2 below. At first sight, this scenario contradicts the preceding one involving the bestowal of kingship upon an outsider by a king's daughter. Nevertheless, both mythical patterns are compatible with an elective system of regnal succession biased towards a king's sons or other close male kin but with the flexibility to look elsewhere in the absence of a family member deemed suitable. Elective kingships along such lines are attested among a number of IE peoples and may well have been a feature of PIE social structure,[3] Dumézil (1943: 10) positing an IE "mythology of election" and Benveniste (1969: 303) stating that the IE peoples of central and western Europe chose kings "not by birth but by election".

Quite possibly, mythical reflexes of *hieros gamos* had a ritual counterpart in the form of an inaugural ceremony at which the newly elected king was symbolically 'chosen' as husband by the offer of a drink from his bride in her capacity as the goddess's surrogate. Another possible inference from the mythical material would be that a new king not, or at least not closely, related to his predecessor was liable to marry into the royal family if a suitable female was available. In the event that a king had no male direct descendants or close agnates deemed fit to succeed him, such a convention may have echoed a broader pattern of inheritance, if this allowed for a residual claim by or through a female in the absence of male heirs related at least as closely to the deceased. For instance, the ancient Germani seem

namely his surviving sons and daughters as well as the children of any son or daughter who had predeceased him (who divided up the share otherwise due to him as in Ireland), and only in their absence among collateral kin (*agnati*) such as brothers sharing a father with him, paternal uncles and so on in order of proximity.

3 Rome's kings were elected in the extant sources. For example, the outsider Servius Tullius became king after the assassination of Tarquinius Priscus on behalf of his predecessor Ancus Marcius' sons, and only her flawed last king, Tarquinius Superbus, was directly descended from another in the male line as "an exception that proves the rule, and indeed confirms that in normal circumstances hereditary succession was excluded" (Cornell 1995: 141–142). Fomin (2013: 269) contrasts the "survival of a more archaic electoral kingship" in Ceylon with otherwise typical Indian succession by primogeniture in the male line. Succession by the king's eldest son was not automatic among the Scyths (Herodotus iv, 5–6) or in early medieval Ireland (see Ó Corráin 1971, Charles-Edwards 1993: 89–111 and Jaski 2000), and the king's son(s) might be overlooked in the *Odyssey* (i, 386–401).

to have allowed maternal uncles to inherit if there were no surviving children, brothers or paternal uncles in that order (see note 2 above), and early Irish law makes the following provision: "a daughter is entitled to a share of her father's personal valuables, but not of his land. However, if she has no brother, she is known as a *banchomarbae* 'female heir', and is entitled to a life-interest in her father's land. Normally, she cannot pass this land on to her husband or her sons; on her death it reverts to the wider circle of her own kin. But if her husband is an alien … she is entitled to pass on to her son 'the inheritance of a sister's son' (*orbae niad*) … i.e. the property-qualification of an *ócaire*" as the "lowest grade of adult freeman" (Kelly 1988: 104–105 and 318). Interestingly, in the Iranian tale, it is "on account of being devoid of male offspring" (Athenaeus xiii, 575c) that the king arranges for his daughter to marry the local kinsman of her choice.

To conclude, the link between mythical and social features or patterns seems often to be sufficiently straightforward for myths and legends to yield valuable direct information about the institutions and practices of the societies to which they belong. However, this is by no means invariably the case, since the dynamics of 'dialectic' interaction with an environment that includes religious beliefs can produce transformations or even inversions of real-life norms in myths or legends. These can serve a reliable corroborative and augmentative purpose when they are in tune with information about institutions and practices gleaned from other sources. They can also be exploited more tentatively if their social implications are typologically reasonable and uncontradicted by other good evidence. However, significant divergence between a myth's structure or contents and more directly attested usages should serve as a warning against the uncritical extrapolation of social realities from the mythical representations in question.

1.3 Age-grades and age-sets

Kith and kin were not, of course, the only source of formal social ties (or, for that matter, rivalries), and a significant nexus of reciprocity not conditioned by claims of consanguinity or matrimony as such is explored by Benveniste (1969: 87–101) in a chapter on hospitality in an IE context. Bonds independent of kinship or marriage could also be forged between the often unrelated members of an ideally lifelong social group along the lines of present-day alumni associations and regimental or class reunions, which are based upon shared experience in an institution (e.g., a school, a university or the army) or even a particular date of

admission to it as the 'class' of year X. Membership of such associations is usually voluntary in 'modern' societies, but stricter social and ritual arrangements are well-attested elsewhere. A prominent British anthropologist of the functionalist school has identified coevality and life-membership as the first and second essential attributes of what he terms an 'age-set', the term preferred below over alternatives such as 'age-class' or 'age-group'.

> Radcliffe-Brown … defined an age-set as "A recognised and sometimes organised group consisting of persons … who are of the same age … Once a person enters a given age-set, whether at birth or by initiation, he remains a member of the same set for the remainder of his life." … Roughly speaking, a society has an age-set system when it has a number of age-sets with no members in common and distinct mean ages … Quite often, age-group systems are found in conjunction with age grades, defined by Radcliffe-Brown as "recognised divisions of the life of an individual as he passes from infancy to old age … infant, boy, youth, young married man, elder, or whatever it may be." … The grades are clearly demarcated, that is, transition from one grade to another takes place at a definite point in time, and there is never any doubt about which grade a person is in. (Our own society does not have age-grades of this kind for adults.) (Stewart 1977: 1–2)

Although sequences of just three age-grades are widespread cross-culturally,

> systems of this kind can, of course, be much more elaborate than the simple three-part model …, especially if the age-grades overlap with age-classes … or increase in number on account of finer differentiation of functions and features. The expression 'age-class' or 'age-group' denotes associations of those who are initiated at the same time and subsequently progress through the different age-grades together. The Celtic and Germanic data, however, do not enable us to go beyond the simple three-grade system. The bachelor bands attested there … seem to have attached themselves to their leader mostly for purely personal reasons and probably constituted no lifelong age-classes in the strict sense. (McCone 1987: 115–116)

This conclusion was basically reiterated in a broader IE context (McCone 1987: 145–146), and the present contribution seeks to revise it in the light of additional data pointing to age-sets as an adjunct of a PIE system of three post-pubescent age-grades.

2 IE sodalities and their attributes

2.1 'Wolves' and 'wolfskins'

The argument below that (P)IE sodalities were a prerequisite for age-sets calls for some discussion of the nature of bachelor bands, rules of admission into them and conditions for proceeding to the next age-grade as a married householder. If there was a basic PIE social dichotomy between a lower and an upper class as suggested above, it seems probable that membership of junior sodalities, adult age-sets and senior councils was primarily the prerogative of the latter (McCone 2020: 120–121).

"Man ever since the development of hunting has belonged to two overlapping social structures, the family and the *Männerbund* …, which is biologically analogous to a pack of wolves" (Burkert 1983: 17–18). Although the introduction of agriculture and the domestication of certain animals made hunting increasingly dispensable, the defensive and offensive utility of men trained to kill meant that young males often continued to be raised as hunters and fighters in a sodality or *Männerbund*. For instance, in a sixth-millennium BC "farming town where goat and sheep had long been domesticated" at Çatal Hüyük in central Turkey, "wall paintings contain clear, thrilling depictions of the ritual hunt of a band of leopard men" (Burkert 1983: 42–43). However, this phase of activity was now marked off from that of older married men still available to fight but otherwise engaged in pastoral and/or arable pursuits. Geography was naturally relevant to the choice of mascot predator, and "wolves played a great role as warrior models throughout Eurasia and North America … among Indo-Europeans, Turks, Mongols and American Indians" (Speidel 2004: 14).

A way of life centred upon pastoralism at home and hunting or raiding abroad typified the ancient Germani as described by Caesar in *de Bello Gallico*:

> Their whole life consists of hunting and military pursuits. They are devoted to exertion and hardship from an early age. Those who have remained virgins (*impuberes*) for longest enjoy the greatest praise among their fellows … To have had knowledge of a woman before the age of twenty is reckoned among the most disgraceful things … They are not concerned with arable farming (*agri cultura*) and the bulk of their food consists of milk, cheese and meat … Robberies (*latrocinia*) that occur beyond the boundaries of a given people (*civitas*) are not condemned and they declare that they take place in

> order to train the youth and reduce inactivity. Furthermore, where someone from among the chiefs (*ex principibus*) has said in the assembly (*in concilio*) that he is going to be a leader (*dux*) and that those who wish to follow him should declare themselves, those who approve of the cause and the man rise up, promise their assistance and are praised by the multitude. (Caesar, *de Bello Gallico* vi, 21, 3–5 and 23, 6–7)

An array of correspondences between Germanic and Celtic evidence (McCone 1987: 101–104 and 104–110), combined with linguistic considerations (110–114), led to the following conclusion:

> The **koryos* [sodality] consists of propertiless bachelors of free birth who lead an unrestrained life based upon hunting, robbery and fighting on the margins of the settled community … Admission and progress are attained on the strength of bloody trials. Its members are spear- and shield-bearing foot-soldiers prone to onsets of frenzy, whose wild and brave appearance can be enhanced by a special hairstyle, nudity or wearing wolfskins. On account of such traits and also because its members appear to be bestially possessed, the **koryos* is equated with a pack of dogs or, above all, wolves. Admission to this sodality entails recognition of puberty and this transition or 'rite of passage' is often connected with a change of name (Van Gennep 1960: 62, 77, 83 …). This is presumably why 'hound' and 'wolf' occur so frequently in Celtic and Germanic personal names, 'wolf' clearly predominating. Through the initiation in question, the new member becomes a wolf and devotes himself to the wild hunting life. (McCone 1987: 114)

Lincoln (1975: 103) points out that the word for wolf appears "in literally hundreds of proper names". He follows a discussion of relevant Indo-Iranian evidence with the assertion that "the ideology of man as wolf, the fiercest and most cunning of predators, is [also] well attested in Baltic, Slavic, Germanic, Greek, Roman, and Anatolian sources, and thus must ascend to the Proto-Indo-European period" (Lincoln 1981: 126; cf. McCone 1987: 119–122). Celtic can be confidently added to the list in the light of medieval Irish evidence for the likening of warriors, particularly those belonging to a vagabond sodality called a *fían*, to wolves (McCone 1986 and 1987: 103–106). Wikander (1938) has assembled evidence for Indo-Iranian sodalities whose members were typically called *márya-* in Vedic and *mairiia-* in Avestan. According to Benveniste (1969: 247), "one perceives in the distant past an institutional value attached to this term, that of a class of young warriors, because

the *maryanni* designating the class of warriors figure among the Indo-Iranian terms that we encounter in the 14th century BC in the texts of Mitanni", while references to them as wolves have been considered by Wikander (1938: 65–66) and Lincoln (1981: 125). Herodotus (iv, 105) states of neighbours of the Scyths with similar customs that "once every year each of the Neuri becomes a wolf for a few days and then returns to his former state". According to Jakobson (1966: 352),

> the community and similarity of lycanthropic beliefs in the Slavic world and the expansion of the Slavic werewolf name among the adjacent peoples (Greek *vrukólakas*, Turkish *vurkolak*, Albanian *vurvolak*, Rumanian *vărkolak*) speak for the antiquity and tenacity of these beliefs … If the 'Neuroi' in Herodotus' report really belong to the Primitive Slavs, as many scholars believe, the legends about their magic ability to change themselves into wolves … give us a glimpse of the distant Slavic past and its mythology.

As for the Russian hero Volx discussed below (5.1–2), one source "explicitly depicts Vseslav as a werewolf" and "both in the *Slovo* and in the *bylina* particular attention is paid to his changes into a wolf" (Jakobson 1966: 347). In his *Historia de Gentibus Septentrionalibus* (xvii, 45–46) of 1555 the Swedish archbishop Olaus Magnus gives a lively description of great wild wolfish hordes that assembled for a few days every year in Lithuania, Latvia and Prussia, contained upper-class people and indulged in vandalism and drunkenness. Werewolves (e.g., Serbian *vukodlak*, Church Slavonic *vъlkodlakъ*, literally 'wolf-haired') evidently played a significant role among the Slavs and Balts (Ridley: 1976), about whom further evidence is provided by a Livonian legal protocol of 1691.[4]

Burkert (1983) offers a penetrating discussion of Arcadian werewolves and their cannibalistic initiation at the festival of Zeus Lykaios on Mount Lykaion (ibid.: 84–93), the role of wolves at Delphi including "a story that Apollo was born by a she-wolf" (ibid.: 120–121), and "the fact that the structure of Odysseus' 'sufferings' quite obviously corresponds to the werewolf pattern that turns up again and again from Delphi to Mount Lykaion" (ibid.: 133). Italic evidence includes mention of Caeculus of Praeneste's wild followers (*legio … agrestis*) "and their tawny caps of wolf's skin" (*fulvosque lupi de pelle galeros*) by Vergil (*Aeneid* vii, 681 and 688), whose reference (*Aeneid* xi, 785) to Apollo as "guardian of Soracte" (*custos Soractis*) in the territory of the Hirpini prompts Servius to comment:

4 Original German text in Höfler (1934: 345–357), English translation in Gershenson (1991: 134–139).

> For when a rite was once being performed for Dis Pater on this mountain … wolves suddenly came and seized the innards from the fire. When the shepherds pursued them for a long time … a pestilence arose thereafter because they had followed the wolves. The response concerning this was that it could be assuaged if they imitated wolves, i.e., lived by plunder. This was then done and those people were called Hirpi Sorani. For wolves (*lupî*) are called *hirpi* in the Sabines' language. Sorani, indeed, (comes) from Dis. For Dis Pater is called Soranus. Wolves of Dis Pater, so to speak.

The onset of martial frenzy is called *berserksgangr* 'going berserk' in Old Norse and was closely connected with the spear-casting one-eyed Germanic god of war and death, **Wōdanaz* (> ON *Óðinn*, OE *Wōden*, OHG *Wuotan*) 'lord of frenzy/the frenzied' (MHG *wuot* 'frenzy'; Goth. *woþs*, ON *óðr*, OE *wōd*, OHG *wuot* 'frenzied') at the head of a wild host of warriors fallen in battle (e.g., Ellis Davidson 1964: 48–72, Benveniste 1969: 302–303), who were called his *ein-herjar* (**-harja-* < **korio̯-*; see above and Benveniste 1969: 111–113). Adam of Bremen (*Descriptio Insularum Aquilonis* 26) states that "Wodan, i.e. frenzy (*furor*), wages wars and furnishes man with courage against enemies", and *Ynglingasaga* 6 depicts the effects upon his followers: "his men fought without breastplates and were as rabid as hounds or wolves. They bit into their shields and were as strong as bears or bulls. They slew the men and neither fire nor iron could check them at all. That is called *berserksgangr*."

A comparable state of manic invincibility is called *lyssa* (λύσσα) 'frenzy' (literally 'wolfishness' < **luk^{w}-i̯a*, a derivative of *lykos* [λύκος] 'wolf' < **luk^{w}-o-s*) in Greek (Lincoln 1975): for instance Hector "exulting greatly in might (μέγα σθένεϊ βλεμεαίνων)[5] rages terribly (μαίνεται ἐκπάγλως), trusting in Zeus, and cares naught for men or gods; for a powerful frenzy (κρατερή … λύσσα) has entered him" (*Iliad* ix, 237–239), while Achilles is similarly irresistible as "a powerful frenzy (λύσσα … κρατερή) still holds his heart" (xxi, 542–543).

Although heroes in the *Iliad* tend to be compared with lions in near-eastern fashion (e.g., West 1997: 246, Strawn 2005), wolves also figure at key moments: the Greeks and Trojans "leapt at each other like wolves (λύκοι ὥς) and man cast down man" (iv, 471–472) or "were raging like wolves (λύκοι ὡς θῦνον)" (xi, 72–73)', and

5 A phrase with bestial connotations apparent in its use with reference to the great 'spirit' (θυμός) of a leopard, lion or boar at *Iliad* xvii, 20–22, of a lion at xvii, 132–136, of a boar or lion fearlessly defying hunters and hounds at xii, 39–50, and indeed of Hector again "as when some dog catches hold of a wild boar or a lion from behind" at viii, 337–339.

the Myrmidons about to join battle along with Patroclus were "like flesh-eating wolves (λύκοι ὣς ὠμοφάγοι)" with cheeks bloodied from devouring a mighty stag after chasing it through the woods (xvi, 156–159). Stanza 20 of an Old Norse skaldic poem by Þorbjǫrn hornklofi known as *Haraldskvæði* or *Hrafnsmál* begins with the Valkyrie asking "about berserks' equipment (*at berserkja reiðu*)" and being told by the raven at the beginning of stanza 21, "they are called wolf-skins (*úlf-heðnar heita*)". *Vatnsdælasaga* (9, 1) introduces "berserks who were called wolfskins (*berserkir er úlfheðnar váru kallaðir*)" and had "wolf(skin)-jackets as breastplates (*varg-stakka fyrir brynjur*)". Since the Alemannic name *Wolf-hetan* is an obvious cognate of Norse *úlf-heðinn* 'wolf-skin' (Müller 1969), the term presumably goes back at least as far as the common ancestor of West and North Germanic. *Vǫlsungasaga* (8) tells how the heroic Sigmund and his son Sinfjǫtli donned wolf-skins (*úlfa-hamir*) left hanging on trees by two sleeping kings' sons (*konunga-synir*), began to howl and went to live and kill in the forest like wolves until they burned the skins and returned to the world of men.

A comparable transformation appears in the Middle Irish onomastic compilation *Cóir Anmann* 'Propriety of names' (§218; Arbuthnot 2007: 58 and 131), which ascribes the name Laignech Fáelad to its bearer's penchant "for wolfing (*fri fáelad*), i.e., he went into wolf-shapes (*i con-rechtaib*),[6] i.e., into the shapes of wolves (*i rechtaib na mac tíre*), when he wished, as did his descendants later, and they killed cattle after the fashion of wolves (*fo bés na mac tíre*)".[7] In the early medieval Irish saga *The Destruction of Da Derga's Hostel* (ed. Knott 1936, trans. Gantz 1981: 61–106), young Conaire becomes king of Tara and Ireland as a youth but is ultimately undone by his devotion to his three foster-brothers. One of Conaire's royal taboos was "let brigandage (*díberg*) not be undertaken in your reign" (§16). This got off to a peaceful and prosperous start but, as the sons of a *féinnid* or member of a *fían*-band, his foster brothers "complained about being deprived of the profession of their father and grandfather, i.e., robbery and plunder and killing people and brigandage (*díberg*)" (§18) and began to rob a man every year. When the king failed to act on their victim's complaints, "arrogance and greed seized them. They took up brigandage (*díberg*) with sons of the nobles of Ireland around them. Three fifties of men (were) being instructed by them when they

6 See McCone (1987: 104–105, 2021: 206–207) on the virtual loss of the reflexes of the PIE word for 'wolf' in Celtic and use of inherited **kū* 'dog, hound' for 'wolf' too, an ambiguity subsequently avoided to a large extent by new expressions for 'wolf', notably *fáel*(*-chú*), *cú allaid* 'wild dog' and *mac tíre* 'son of (the) land'.

7 See Carey (2002: 48–64) on this and related material concerning "the werewolves of Ossory".

were wolfing (*oc fáelad*) in the territory of the Connachtmen" (§20). The connection between *díberg* and the *fían* emerges at various points, such as when "the brigands (*díbergaig*) leaped onto Trácht Fuirbthin and bring a stone per man with them to make a cairn, for that was the characteristic practice of the warbands/sodalities (*fíanna*) at the start" (§67). Captured and banished from Ireland, the numerous brigands (*díbergaig*) put to sea, encountered and combined with British counterparts, and finally caused Conaire's death in an attack upon Da Derga's hostel, which he was visiting. An Old Irish charm (Stokes and Strachan 1903: 293) from the ninth-century AD *Codex Sancti Pauli,* which probably relates to a game of chance to decide an inheritance (McCone 1990: 207–209), ends as follows: "If luck should befall me, may it be grain and dairy produce that I see. If luck should not befall me, may it be wolves and deer and traversing of mountains and the young warriors of the *fían*-band that I see".

2.2 Nudity

Having been notified of his royal father's death by his foster-parents while at play with his three foster-brothers in chariots (§11–12), Conaire was enabled by supernatural advice to conform to a trance-induced vision of the next king by arriving at Tara stark naked (*lom-nocht*) (§13–14) and then allayed doubts about the fitness of "a young beard-less lad (*gillae óc am-ulchach*)" to be made king (§15). Tacitus (*Germania* 6) records that the Germanic infantrymen (*pedites*) of his day fought "naked or lightly clad in a small cloak (*nudi aut sagulo leves*)", further noting "the speed of the infantrymen, whom they pick out from all the youth (*ex omni iuventute*) and place in front of the battle line (*ante aciem*)". He also mentions (24) a spectacle in which "naked youths (*nudi iuvenes*), to whom the game (*ludicrum*) belongs, leap about amidst swords and threatening spears (*inter gladios se atque infestas frameas saltu iaciunt*)". Paul the Deacon (*Historia Langobardorum* i, 20) refers to Germanic Heruli fighting naked (*nudi*) with only their genitals covered (*operientes solummodo corporis verecunda*) in 560 AD, and there is early iconic evidence for naked Germanic warriors such as the one with horned helmet, belt and two spears on a sixth-century AD Anglo-Saxon buckle from Finglesham in Kent (illustrated in the Wikipedia article "Finglesham").[8]

8 For an illustration see https://commons.wikimedia.org/wiki/File:FingleshamMan1965Buckle.png.

At the Battle of Telamon in 225 BC between Romans and Gauls, the Gaisatai 'spearmen'[9] recruited by the latter from the mountainous Alps likewise "stood naked with their arms in front of the force" (Polybius ii, 28, 2) and "terrifying was the appearance and movement of the naked men standing in front, as they stood out in strength and form" (29, 2). Diodorus (v, 29, 1–2) mentions Celtic warriors "naked and wearing a belt/girdle (γυμνοὺς καὶ περιεζωσμένους)". Iconographic evidence (e.g. Moscati et al. 1991: 60–71 and 88; James 1993: 6–7, 20, 32–34 and 40–42) includes a clothed Etruscan cavalryman fighting a naked Gaulish infantryman armed only with shield and sword on a mid-fourth-century BC stele from Felsina (Bologna) and Gaulish footsoldiers with only neck torques, belts and, in some cases, short cloaks contrasting with tunic-clad charioteers on a second-century BC temple frieze from nearby Civitalba. In the *Iliad* "the youths (*kouroî*) who were most numerous and best followed Polydamas and Hector and were most eager to break the wall and burn the ships with fire" (xii, 197–198), and in a short early Irish saga (*Táin Bó Flidais*) "Ailill son of Mata said 'Bad for the honour of the Ulsterman now is the fact that the three warriors (*é-claind*, literally 'kinless') of them have fallen and they do not take vengeance for it' … Thereupon the sole-kinsmen (*an-chin*(*n*)*idî*) of the Ulstermen arise naked and launch a mighty, violent attack with great wrath and rage so that they brought the lintel down" (Best and Bergin 1929: ll. 1594–1608). Towards the end of *Táin Bó Cúailnge*, recently aroused Ulstermen "come to the battle stark naked (*tor-nocht*) apart from their weapons" (O'Rahilly 1976: ll. 3937–3938). Nudity was evidently practised by the members of early Celtic and Germanic sodalities, apparently as an alternative to wearing wolfskins or the like.

Polybius (vi, 25, 3) states that the Roman cavalry "in olden times at first did not have breastplates but took their chances in belts with the result that they were ready and able to dismount and remount quickly but were at risk in close engagements on account of taking their chances naked". Pliny (*Nat. Hist.* xxxiii, 35–36) provides the information that Rome's knights (*equites*) "were called *celeres* under Romulus and the kings", then *trossuli* and finally *equites,* while Dionysius of Halicarnassus (ii, 12) saw a parallel between Romulus' élite corps of three hundred young *celeres* 'swift ones' and the three hundred Spartan youths usually called

9 Their name is clearly a Greek adaptation (Γαισάτης) of a native Gaulish word **gaisatis* 'spearman' consisting of **gaiso-* 'spear' and a suffix **-ati-* 'pertaining to'. The presumed Gaulish word for 'spear' was borrowed into Latin as *gaesum*, recorded as γαῖσος by Hesychius and cognate with Old Irish *gaí* 'spear' < **gaisos*. See McCone (1995: 6–7) on the suffix.

hippeis 'knights' but employed by Sparta's kings as infantry or cavalry according to circumstances.

Plutarch (*Agesilaus* 34, 8–11) describes how, in the run-up to the Battle of Mantinea in 362 BC, a strapping Spartan named Isadas "of an age when males bloom most pleasantly as they pass from children (*paides*) to (adult) men (*andres*)" joined in repulsing an enemy attack on his own initiative and, naked (*gymnos*) with a spear in one hand and a sword in the other, not only struck down any opponent in his way but also survived effectively 'going berserk' unscathed. Vidal-Naquet (1986: 117) deduces from inscriptional evidence that,

> both Malla and Dreros in Crete seem to have held ceremonies of admission to the adult age-classes that involved ritual nudity before the conferring of hoplite arms. The young men are called *azōstoi* ('ungirdled'), which Hesychius defines as 'those who are without arms'. At Dreros they are called *panazōstoi* and *egdyomenoi* 'those who have no clothes', and the latter term occurs also at Malla. Similarly, at Phaestus there was a festival called the *Ekdysia* ('clothes off').

Aristotle's Lyceum was so called "because it was located in a district in the valley of the Ilissus close to Athens in a gymnasium attached to a temple of Apollo and called after the wolf, because that animal was closely associated with Apollo" (Gershenson 1991: 3). Since the word gymnasium reflects the well-known Greek practice of exercising and competing naked (*gymno-*), the location of ancient Athens' chief gymnasium, the Lyceum (Λύκειον), beside 'Wolfish' (Λύκειος) Apollo's temple was hardly coincidental.

A link between youthful wolfishness and nakedness is explicitly made in the following account by Pliny (*Nat. Hist.* viii, 81):

> Euanthes, not disregarded among the authors of Greece, writes that the Arcadians record that someone from the kindred of a certain Anthus chosen by lot among the family is led to a certain pond in that region and, having hung his clothing on an oak, swims across and goes away into the wilderness and is changed into a wolf and joins a herd with the others of the same kind for nine years; that, if he abstain from human flesh in that time, he returns to the same lake and, when he has swum across, recovers his appearance with the addition of nine years' ageing. He adds, rather more extraordinarily, that he gets back the same garment.

There is a parallel with Odysseus' return to human civilisation, after nine years spent away, by swimming from a wrecked ship to land, where he was given a proper bath and clothes on the orders of the Phaeacian king's daughter, Nausicaa, after emerging naked from a wood (*Od.* v, 262–493, and vi, 110–216) "like a mountain-reared lion (λέων ὀρεσίτροφος) … whose eyes are burning (ἐν δέ οἱ ὄσσε δαίεται)" as he hungrily approaches a dwelling in search of food (vi, 130–134).

Youths, especially those belonging to sodalities, were prone to go about and even fight naked among a number of Indo-European peoples, and Anthony (2007: 364–365) presents archaeological evidence that PIE "*korios* raiders wore a belt and little else … Stone anthropomorphic stelae were erected over hundreds of Yamnaya graves between the Ingul and the South Bug valleys, in the same region where dog-canine pendants were common. The most common clothing element carved or painted on the stelae was a belt, often with an axe or a pair of sandals attached to it". Since such sodalities typically lived in the wilds and were equated with wolves, the obvious explanation of this nudity resides in the principle that "there is nearly always a critical distinction between the body which is naked and unadorned, which is animal, and the body adorned, which is human" (Leach 1982: 117). Insofar as it entailed dispensing with clothes as a characteristic of settled or civilised society and going about unclad like a beast, nakedness amounted to the same thing as wearing the skins of wild animals such as the wolf. Indeed, that was precisely the testimony of "old Thiess" in section 6 of the aforementioned Livonian legal protocol (Höfler 1934: 346): when asked how men became wolves, he first stated that they put on a wolfskin but then shifted to a claim that they were transformed by merely going into a bush and casting off their clothes.

2.3 Speed, agility and war-dances

Light clothing or nakedness were conducive to another important attribute of the typically young members of sodalities, namely speed and agility. The aforementioned early Roman *celeres* are a case in point, Tacitus (*Germania* 6) was impressed by the speed of the youthful Germanic infantry (*velocitate peditum*), and the *Iliad* frequently refers to the fleetness of younger warriors such as 'swift-footed' Achilles (πόδας ὠκύς/ταχύς ix, 357; xvii, 709; xviii, 354; ποδώκης/ποδάρκης xviii, 262; ii, 688; xvi, 5, etc.) or Meriones catching an enemy 'with swift feet' (ποσὶ καρπαλίμοισι xvi, 42). Lincoln (1981: 128) argues that the basic Indo-Iranian term for a warrior's fury was **aisma-* underlying Avestan *aešma-* 'fury, anger'. The underlying PIE root **h₁(e/o)is-* 'storm, assault' is also seen in Indic *iṣm-ín-* 'hasten-

ing, impetuous', used as an epithet of Rudra and the Maruts (e.g., *RV* v, 52, 16 and i, 87, 6 respectively), *eṣá-* 'running', Latin *īra* 'anger' and Homeric Greek *oima* 'rush, swoop'. It seems to have denoted rapid and frenzied motion, especially that of ecstatic young warriors, in the parent language. In ancient Iran, a god Aēšma was served by "the host of the two-footed 'wolves' (V.7.52, Y.9.18)" (Falk 1986: 62), *daēva*s comparable to the Indic *daiva* Vrātyas associated with Rudra and the Maruts (Falk 1986: 18 and 60–63).

The leaping war-dance of naked Germanic youths mentioned above brings to mind the Roman *Salii*, Vergil (*Aeneid* viii, 663) juxtaposing "leaping Salii and naked Luperci (*exsultantis Salios nudosque Lupercos*)". According to Dionysius (ii, 70),

> all of these Salii are dancers and of the armed gods. Their festival is … in the month called March (*Martius* 'of Mars'), being held at public cost over many days, in the course of which they perform their dances through the city … Each is dressed in colourful tunics with kilts of bronze … Each of them is girt with a sword and wields a spear, staff or suchlike in the right hand while holding a light Thracian shield in the left … such as those carrying out the rites of the Curetes among the Greeks are said to bear … The Salii are, to my knowledge at least, taken over from the Greek term Curetes, so called by us from their age as lads (*kouroi*) but by the Romans from their impetuous movement: for leaping and bounding is called *salire* by them … For they make their armed movements in rhythm to the flute … To judge from ancient accounts, the first to establish dancing and movement while armed and the noise produced by the blades on the shields were the Curetes.

Dancing was represented in Homeric epic as the special preserve of *kouroi* or its alternant *kourētes*, as in the expression κοῦροι Ἀχαιῶν (*Il.* ii, 562, etc.) or κούρητες Ἀχαιῶν (*Il.* xix, 248, cf. 193). Examples of young dancers in the *Iliad* include the Cretan king Idomeneus' chief *hetairos*, Meriones (ὀρχήστης at xvi, 617), Hector ("I know how to dance in formation to destructive Ares"; vii, 241), and the dancing *kouroi* (κοῦροι δ' ὀρχηστῆρες ἐδίνεον; xviii, 494) at the wedding depicted on Achilles' new shield. In the *Odyssey* the suitors, who are frequently referred to as *kouroi*, dance after feasting (e.g. i, 150–152 and 422–424), and the Phaeacian youth (κοῦροι πρωθῆβαι) are remarkable for their skill in the dance (viii, 261–265). Strabo (x, 3) discusses the mythical and religious significance of various Curetes, including the nine Cretan ones (3, 22; cf. Diodorus v, 65, 1) famously responsible for drowning out the concealed baby Zeus' cries by their noisy war dance. Described

as manically possessed dancing priests (3, 7), they were also said to have protected Leto from a jealous Hera at the birth of Apollo and Artemis on a mountain near Ephesus that was the site of an annual festival featuring youthful rivalry, drinking and initiations presided over by a college of Curetes (xiv, 1, 20). These at first sight disparate phenomena can be integrated by positing primitive Greek sodalities of **koru̯oi* or **koru̯ētes* as a starting point.

2.4 Fiery features

At the head of the "flame-like (φλογὶ ἴσοι)" Trojans, Hector is "raging with *lyssa* like a flame (λυσσώδης φλογὶ εἴκελος)" (*Iliad* xiii, 39 and 53). The supreme Irish hero Cú Chulainn is liable to a battle frenzy similar to Norse *berserksgangr* or Greek *lyssa* and called *ríastrad* 'warp spasm'. Among other things, this literally fires him up in *Táin Bó Cúailnge*:

> The candles of the war-goddess (Badb) and the rainclouds of venom and the sparks of flaming red fire were seen in clouds and gusts above his head in response to the seething (*fiuchad*) of truly fierce frenzy that rose above him … The warrior's moon (*lúan láith*) arose out of his forehead. (O'Rahilly 1976: ll. 2245–2278)

Although Homeric *lyssa* 'frenzy' seems more likely to derive from 'wolf' (Lincoln 1975: 98, n. 4), an analysis as a reflex of **luk-i̯a-* 'light' would be formally unimpeachable, and also semantically defensible (Lincoln 1975: 98, n. 3) in view of the frenzied Cú Chulainn's *lúan* (< **lo̯uk-s-no-s*; cf. Greek λύχνος 'light, lamp' < **luk-s-no-s*) or beam of light and the fiery effects attaching to warriors on both sides in the *Iliad*. For instance, after bestowing "might and courage" upon Diomedes, Athene "kindled unceasing fire (δαΐἑ οἱ … ἀκάματον πῦρ) from his helmet and shield" and "such fire did she kindle (τοῖόν οἱ πῦρ δαΐεν) from his head and shoulders" (v, 4 and 6). During the fierce tug of war over Patroclus' body, Greeks and Trojans fought "like fire (δέμας πυρός)" (xvii, 366), Hector was "like a flame in might (φλογὶ εἴκελος ἀλκήν)" (xviii, 154) and, even more spectacularly, Athene came to Achilles "and the noblest of goddesses encircled his head with a golden cloud (νέφος … χρύσεον) and kindled a brilliant flame (φλόγα παμφανόωσαν) out of it" (xviii, 205–206) so that "the light reached up to the sky (σέλας αἰθερ' ἵκανεν) from Achilles' head" (xviii, 214). The corpse was finally rescued as the Greeks took heart and the Trojans fright "when they saw the unceasing dread fire

(ἀκάματον πῦρ δεινόν) blazing above the head of the stout-hearted son of Peleus" (xviii, 224–226).

This phenomenon recalls the Avestan *xᵛarənah-* "the radiant nimbus that marks kings and heroes" (Lincoln 1981: 104, see Hintze 1994: 15–28). Vulcan and his fire were associated with the brigand Caeculus who founded Praeneste (Bremmer 1987), while Pliny (*Nat. Hist.* ii, 241) links flames above the young Servius Tullius, a warrior as well as a king of note, with a clearly martial instance after a Roman defeat in 211 BC: "Valerius Antias relates that a flame shone forth from the head of Servius Tullius (and) that in Spain after the slaying of the Scipios one flared in similar fashion from Lucius Marcius as he was haranguing the troops and urging them to revenge."

A clear connection between fire and wolfishness is made in Serbian folksong, where the hero Zmaj Ognjen(i) Vuk/Vuče 'Fiery Dragon Wolf' "is born, on his head wolf's hair grows, from his mouth living fire gushes, from his nostrils blue flame darts, and his arm is red to the shoulders" (Jakobson 1966: 371). Moses of Chorene gives the following account of the Armenian hero Vahagn's birth: "a red reed had its birth in the seas; from the stem of the reed came forth smoke; from the stems of the reed came forth a flame; and from the flame came forth a young man. This youth had fiery hair, also a beard of flame, and his eyes were suns" (*History of Armenia* i, 31; trans. Lincoln 1981: 106–107). The head figures prominently in the examples of fiery effects above, and blazing eyes are seen in Ammianus Marcellinus' depiction of Germanic warriors "as they raged more than usual and a certain fury shone forth from their eyes (*et elucebat quidam ex oculis furor*)" (xvi, 12, 36) or "with fury shining from their eyes (*furore ex oculis lucente*)" (xxxi, 13, 10). Ammianus (xvi, 12, 24) also tells of a fierce Germanic army led by Chonodomarius, who had a flame-coloured tuft of hair (*flammeus torulus*) fitted to the crown of his head. In the *Iliad*, Agamemnon's "eyes were like shining fire (ὅσσε δέ οἱ πυρὶ λαμπετόωντι ἐίκτην)" (i, 104) and Hector's "eyes burned with fire (πυρὶ δ' ὄσσε δεδήει)" (xii, 466; cf. xv, 607–608 and 623). As for Achilles, "the more did anger (χόλος) enter him and his eyes showed forth terribly under the eyelids as if flame" and "his eyes were shining as if flame of fire (τὼ δέ οἱ ὄσσε λαμπέσθην ὡς εἴ τε πυρὸς σέλας)" (xix, 16–17 and 365–366), while Apollodorus (ii, 64) states that Heracles "used to flash a gleam of fire from his eyes (πυρὸς δ' ἐξ ὀμμάτων ἔλαμπεν αἴγλην)".

Rejecting previous etymologies, Driessen (2003) identifies a 'new' PIE root **ĝʰelh₂-* (e.g., Ved. *hṛṇīte* 'is angry/furious' < **ĝʰl̥-n-h₂-toi̯*, Gk. χόλος 'anger' < **ĝʰólh₂-o-s*) as the base of PC **galā-* (< **ĝʰl̥H-eh₂-*) underlying Old Irish *gal* 'war-like ardour, fury, valour, steam, fighting' and Middle Welsh *gal* 'ferocity, hatred,

enmity'. *Pace* Driessen (2003: 279), this probably also underlies Welsh *gallu* 'be able' and should be identified with the well-established PIE root **ĝʰelh₃-* associated with the colour range 'golden, yellow, green'[10] but basically meaning 'burst into (bright yellow) flames, be(come) radiant/furious/strong' on account of the link between fiery brightness and warrior frenzy (McCone 2006).

2.5 Hairstyles

"Indian, Iranian, Greek, Celtic, Italic and Germanic warriors wore their hair long" (Speidel 2004: 175; cf. Miller 1998), and some typical examples of this widespread but hardly universal practice will suffice here. Appian (*Iberica* 67) describes a battle in Spain in 142 BC between Romans and Lusitanians[11] with their "screaming and barbaric roaring and long hair (κόμη μακρά), which they shake at the enemy". A short Rigvedic hymn (x, 136) refers several times to a "long-haired one" (*keśī*) who bears fire, beholds the sun (*svar*) and is called "this light", is prone to ecstasy, associates with wild animals and drinks from the same cup as Rudra, "the quintessential keśin among the gods" (Falk 1986: 102). Strabo states (x, 3, 6) that the Greek Curetes were "long haired at the back and shorn at the front", the *Iliad* refers to "Achaeans long-haired on the heads (κάρη κομόωντες)" (e.g., ii, 323, and viii, 341) or "Abantes … long-haired behind (ὄπιθεν κομόωντες)" (ii, 542), Sparta's warriors were famed for care of their long hair (Xenophon *Resp. Lac.* 11, 3, and Herodotus vii, 208–209), and Jason returned home at the age of twenty from the centaur Chiron's tuition with his uncut locks tumbling down his whole back (Pindar *Pythian* iv, 82–83). The long hair and beards of the Germanic Chatti are mentioned below (2.6), and "in the year 1297 the Anglo-Irish parliament complained that in recent times degenerate Englishmen had taken to wearing Irish costume and that having their heads halfshaved, they grew their back-hairs long and called them 'culan'" (Simms 1996: 101).

10 E.g. Gk. χλωρός 'yellow, green' < **ĝʰl̥h₃-ro-*; OInd. *hári-*, Av. *zairi-* 'golden, yellow' < **ĝʰelh₃-*; Lat. *helvus* 'light brown', OEng. *ʒeolu*, Lith. *žel̃vas* 'green' < **ĝʰel(h₃)-wo-*; Goth. *gulþ*, ONorse *gull*, OEng. *gold* 'gold' < Gmc. **gulþa-* < **ĝʰl̥h₃-to-*. Like English *yellow*, Greek χλωρός is not infrequently used to denote pallor-inducing cowardice, e.g., χλωρὸν δέος 'yellow fear' at *Il.* vii, 479, and *Od.* xxii, 4

11 An IE people among whom youthful sodalities played a prominent role (Diodorus v, 3, 5) and whose mountain dwellers' long hair was bound back from the forehead for fighting (Strabo iii, 3, 7).

2.6 Ritual death, darkness and outlawry

Regarding the aforementioned Indo-Iranian **marɨ̯a-*, Wikander (1938: 82) opined "that the word does not have direct correspondences in other IE languages", but neither he nor Benveniste (1969: 146–247) considered a formally precise and semantically viable Old/Middle Irish match, namely the admittedly somewhat obscure *muire* apparently designating a leader with military connotations. Taking the two as cognates would imply **mor-ɨ̯o-* 'pertaining to death' (**mor-o-*; *NIL* 488–491) as a specific designation of members of PIE sodalities (McCone 1987: 141) alongside **u̯l̥kʷ-o-/lukʷ-o-* 'wolf' and in contrast with **h₂ɨ̯u-hₓon-* 'endowed with life' (**h₂oɨ̯-u-*; *NIL* 277–287) as a more general designation of young men reflecting their age and vigour. Although an active meaning 'deadly' would have been well suited to sodalities' death-dealing ways, there is reason to think that a passive sense 'deathly' was at least as prominent.

Tacitus' *Germania* (43) names the five strongest of the many nations (*civitates*) of the eastern Lugii, beginning with *C(h)arios* and ending with *Nah(an)arvalos* (acc.pl.). After describing a cult of "Castor and Pollux" among the latter, he proceeds as follows:

> but the others (*alii*), on top of strength, in which they surpass the peoples enumerated a little earlier, (are) fierce (*truces*) (and) enhance their innate ferocity (*insitae ferocitati*) by art and time: they choose black shields, dyed bodies and dark nights for fights and inspire terror by the very fear and shadowiness of a deathly army (*umbra feralis exercitus*), since no enemy can bear the novel and apparently infernal appearance (*novum ac velut infernum adspectum*).

An attractive but uncertain emendation of the manuscripts' *C(h)arios* and *alii to Harios* and *(H)arii* suggested by the likes of Óðinn's aforementioned *ein-herjar* has formed the basis of interpretations such as the following:

> Who are these people? They are the *Harii*. Tacitus here presents what has subsequently been called **Wuotanes heri* (German *wütendes Heer*) the 'raging army' or 'army of Wotan', a disguise of the army of the dead: they take the appearance of infernal beings (it is a *masquerade*), choosing the night to fight, to strike their enemies with terror, an irruption of the dead among the living. This *masquerade* behaviour is supposed to imitate the army of Odin as *Herjan*, imitating on earth the exploits of Odin's band, those whom epic calls *Berserkr*. (Benveniste 1969: 112–113)

Regardless of the proposed emendation, the deliberately darkened appearance and nocturnal habits of these ferocious fighters resembling a *feralis exercitus* are hardly those of a normal army and raise a strong suspicion that Tacitus has generalised here from an account of sodalities' attributes, as he tended to do in the case of the Chatti considered at the end of this section. Falk (1986: 19–20 and 40) points out that the head of an Indian *vrātya*-sodality wears black headgear and clothing as "the colour of night, darkness, and hence of death and danger" and "obviously counts as dead from the moment when he offers himself. As gṛhapati of the vrātyas he, ritually dead, traverses the land with his host". The black (Gk. *melan-*) and nocturnal aspect of two legendary Greek figures, Melanthus and Melanion, has been studied by Vidal-Naquet (1986: 106–128), who notes (112) that Athenian ephebes wore a short black cloak at one ceremony at least. The tenth book of the *Iliad*, commonly known as the *Dolonea* and discussed in more detail in section 3.3, is self-contained and quite unusual, centring as it does upon a nocturnal adventure: after receiving arms from the two leaders of the seven hundred young fighters (*kouroi*) protecting the Greek camp's perimeter, Odysseus and Diomedes set off on foot through the darkness and a corpse-ridden no man's land, where their first success is the capture and killing of a fleet-footed young wolfskin-clad Trojan named Dolon.

When someone joined an early Irish *fían*-sodality, "from the day when … he is received as a *féinnid*, he breaks all connections with his own clan … He is *écland* ('clanless'), and has no other kindred, no social group save the *fían* … The depredations that he does … are in fact necessary to his subsistence, for as an *écland* he is also *díthir* ('landless')" (Sjoestedt 1949: 83–84). Consequently, *é-cland* 'lacking offspring/family (*cland*)' usually means 'warrior', and *óen-chinidi* 'sole-kinsmen' have already been encountered as a band of frenzied naked fighters. Since an *óen-chiniud* so called because he lacked surviving kin would have inherited plenty of property, the term surely reflects his separation from his kindred as an effectively 'dead' non-person or outlaw (McCone 1990: 205). There may well be at least a hint of this when Odysseus gives his name as 'Nobody' (Οὖτις ἐμοί γ' ὄνομα at *Od.* ix, 366) to facilitate his escape from the cave and cannibalism of a cyclops, a figure associated with sodalities in various IE cultures and quite possibly also with the ritual inauguration of their leaders (see section 3.1). The ensuing nine-year period of maritime wanderings punctuated by sojourns in what was effectively no man's land before finally returning home has been aptly compared by Burkert (1983: 133; section 2.1) to the one imposed upon an Arcadian werewolf.

Since fugitives from the law were also classed ritually and legally as non-persons or outlaws, they too were termed 'wolf' among a number of Indo-European peoples. Based upon Puhvel (1971), Gerstein (1974: 134–135) sees Germanic **wargaz* as "a strangler who deserves to be strangled … a werewolf, a demonic shape-changer whose criminality pollutes the community". The legendary Lykos 'Wolf', who gave his name to the Lycians of Asia Minor, had been expelled from Athens according to Herodotus (i, 173). The Hittite laws grant no compensation for a death inflicted in an attempt to recover a woman abducted by a man who is told "you have become a wolf".[12] The Rigveda juxtaposes an internal enemy termed *arí-* and an external one termed *vṛ́ka-* 'wolf' (*RV* ix, 79, 3; see Jamison 2009: 207–208). *Cú glas* 'grey wolf' is a key Old Irish term for a stranger or outsider from overseas (Charles-Edwards 1976: 46–53; Campanile 1979: 238–239), and an Anglo-Norman rule governing outlawry decrees "that henceforth he be held to be a wolf and is to be proclaimed 'wolf's head' (*wolvesheved*),[13] because the wolf (*lou*) is a beast hated by everyone, and henceforth it is up to everyone to kill him for the price of a wolf" (Whittaker 1895: 125). In the medieval Irish *Táin Bó Cúailnge*, "'Who of the men of Ulster raises the shield (against me)?' asked Fergus. 'One who is better (than you)' said Conchobar. 'One who drove you into exile to dwell with wolves and foxes'" (O'Rahilly 1976: ll. 4049–4052). Campanile (1979: 246) concludes "that in the juridic language 'wolf' was the technical denomination of a man banished from his people" as early as Proto-Indo-European.

The potential of a sodality in the wilds to serve as a magnet for other outlaws was demonstrated in southwestern Italy around the middle of the 4th century BC by the Bruttii, who

> had expelled many cities of Greek origin from Italy. They had also defeated the Lucanians, from whom they originated, in war and had made peace with them on equal terms. They had such fierceness (*feritas*) of spirit that they did not even spare their source. For the Lucanians had been wont to bring up their children by the same laws as the Spartans. That is to say, from the onset of puberty they were kept in woods among herdsmen without the attendance of slaves (and) without clothing to dress in or lay down upon

12 *Zi-ik-ṷa* UR.BAR.RA *ki-ša-at* (Friedrich 1971: 26, §37). Martirosyan (2010: 793) suggests a similar PIE juridical expression relating to outlawry on the strength of an Armenian parallel.

13 The sole Middle English term in a passage otherwise written in Old French: *qui des adunc le tegne lem pour lou e est criable wolvesheved … e des adunc list a chescun del occire al foer de lou*.

> in order that they might grow used to harshness and frugality from their earliest years without city habits. Their food was the prey of the hunt, their drink milk or spring water. Thus they were hardened for warlike endeavours. When fifty of their number, having become accustomed to plunder the lands of neighbours, had become more numerous as many gathered to them under the inducement of booty, they made the regions into their enemies … Then they established a state as herdsmen flocked to them in expectation of a new city. (Justin xxiii, 1)

Diodorus (xvi, 15) highlights the role of runaway slaves in swelling a band steadily transformed by a predatory outdoor life into a formidable military machine of *Brettioi* (Bruttii) capable of reducing whole cities.

Tacitus' *Germania* introduces the Chatti as a particularly warlike Germanic people whose whole strength lay in their infantry (*omne robur in pedite*; 30) and then makes the following remarks (31):

> it has become a custom, as soon as they have attained manhood, to let hair and beard grow and not to give up the facial appearance vowed and bound to courage except after slaying an enemy … This appearance pleases most of the Chatti and they proceed to grow white haired (thus) marked and displayed alike to the enemy and to their own. The initiation of all fights is in their hands … None has a home or land or any responsibility: as they come to everyone they are fed, wasteful of the livelihood of others and contemptuous of their own until feeble old age render them unequal to such a hard regime.

The members of an Irish *fían* typically lacked property and family but were entitled to hospitality from those with property, notably *briugaid* or 'hospitallers' (McCone 1984: 21–22) but also nobles such as Cú Chulainn, who boasts in the saga *Étaín's wooing* (§22, ed. Van Hamel 1933: 20–68) that he feeds Ulster's brigands (*díberga*) for a week, presumably once a year.

2.7 Nature versus culture

To sum up, the period between puberty/manhood and full adulthood was typically spent in a sodality outside, in effect 'dead' to, the kindred and normal human society. This virtual limbo separated two phases on the inside. The first was as a minor, initially in the parental home among the father's kin, but subsequently

with foster-parents related to the mother in what was effectively a halfway house between residence among the kindred proper and roaming the wilds in a sodality. The second was as the married head of one's own household, the adult role for which the hardships of life in a sodality were intended to prepare a young man. Van Gennep (1960: 114) makes the general observation that "the novices are outside society" and "among a great many peoples … during the novitiate the young people steal and pillage at will or feed and adorn themselves at the expense of the settled community". It has been seen that movement to and/or from a sodality could be marked by stripping clothes off and/or putting them on respectively. This combination can be formulated in terms of a fundamental opposition between nature (e.g., the wilds frequented by bestial sodalities) and culture posited by structuralists, who also observe a tendency to accompany "two opposite terms with … a third one as a mediator" such "as garments between 'nature' and 'culture'" (Lévi-Strauss 1963: 220 and 222). As Csapo (2005: 228) puts it, "clothing is a mediator between culture and nature: naked we are all children of nature; clothed we are fully products of culture".

3 Initiations and the age factor

3.1 Cannibalism, the 'dog' throw and canine sacrifice

Plato (*Rep.* 565d) refers to a story (μῦθος) "which is told of the sanctuary of Lycaean Zeus in Arcadia", namely "that he who has tasted one bit of human entrails minced up with those of other victims must become a wolf". Turning from the founding of the city of Lycosura (Λυκόσουρα) and the Lycaean games (Λύκαια) on Mount Lycaeus (ἐν τῷ ὄρει τῷ Λυκαίῳ) by Lycaon (Λυκάων), all names derived from *lykos* (λύκος) 'wolf', Pausanias (viii, 2, 1–3) tells how Lycaon brought a baby to Lycaean Zeus' altar and became a wolf while sacrificing it. After an excursus, he resumes the thread (viii, 2, 6):

> For they say that after Lycaon someone would always be turned from a man into a wolf at the sacrifice of Lycaean Zeus (ἀεί τις ἐξ ἀνθρώπου λύκος γίνοιτο ἐπὶ τῇ θυσίᾳ τοῦ Λυκαίου Διός) but would not become so for the whole of his life. If he abstained from human flesh when a wolf, they say that he would be turned back from a wolf into a man in the tenth year thereafter but that he would remain a beast forever if he tasted it.

Falk (1986: 30–49) examines the Indian Vrātyastoma, a sacrifice marking the beginning and end of a *vrātya*-sodality's expedition and including a request for presents from a king, and compares it with the *sattra*, a sacrifice with cannibalistic connotations secretly held in the wilds and including a presentation of food to the participating *sattrin*s by a member of the *kṣatriya*-caste, which included kings. Moreover, "just as the vrātya was understood as a dog in one passage … so do we find … groups of dogs as sattrins" (Falk 1986: 40).

In Greek (κύων) and Latin (*canis* or diminutive *canicula*), the lowest throw in dice is called a 'dog' (Kershaw 2000: 249). This striking correspondence is plausibly associated by Falk (1986: 99–111) with an ancient Indian ritual game played with thrice fifty nuts. This seems originally to have been an integral part of a sodality's initiation and the lowest score of one was named after the god Kali and avoided by the victorious *śva-ghnín-* 'possessor of the dog-killer'. The player left with only a single nut was deemed the loser and designated leader of the youths due to be sent forth, rather as the loser of the game in the already discussed Old Irish charm was destined to rove the mountains with other youths of a *fían*-band. Falk (1986: 109) notes that "Kali as the game's result is materially 'one nut (*eko'kṣaḥ*)' and as a being 'one-eyed (*ekākṣa*)'", which "also serves to designate Rudra in the Mbh. 13.146,2 (*ekākṣa*)". The Indic evidence is interpreted as follows:

> The hound marked the loser, and in the Veda the hound was associated with Rudra, with death. Since, however, Kali also designates the leader of the dice-band, it is *a priori* plausible to assume that the original game must have served to determine a leader, the 'hound' to be precise. Rudra enters men in the form of Kali, as is adequately known from the case of Nala … So, whoever obtained the hound-result was entered by Rudra, was turned into Rudra, into the hound, into the leader of the wild host. (Falk 1986: 110–111)

The PIE term for the lowest throw in dice or the like seems to have been **ḱu̯ō* 'hound, dog' (Schlerath 1954: 36), and Kershaw (2000: 257) expresses confidence "that the ritual dice game to choose a leader, who is not the winner but the loser … is Indo-European. Kali is one-eyed because the Kali outcome is one eye/nut … And this, I believe, is why Oðinn … is one-eyed. The leader is chosen by the one-eye result, and the one-eyed god enters into him: he becomes the one-eyed god". Whether or not there was a divine one-eyed PIE patron of sodalities, there is good evidence from a number of IE cultures for the association of one-eyed figures with such warbands (McCone 1999, and 2021: 214–220). That being so,

this feature may well have correlated with the role of 'one eye', whether a single nut or a single mark on a dice face, in a ritual game to determine the leader of a newly formed sodality.

Given a tendency to use suitable domestic animals as sacrificial surrogates of wild ones (cf. Burkert 1983: 43), a dog would be the wolf's natural equivalent in rites connected with youthful sodalities and/or fighting.[14] Evidence has been presented elsewhere (McCone 2021: 205–210) for PIE belief in two great hound guardians of the realm of the dead, not least fallen warriors, and for a PIE canine sacrifice connected with warriors, especially youthful members of sodalities. The latter's basic features seem to be best preserved in a Macedonian ritual recorded by Livy (xl, 6–7):

> the time for purifying (*lustrandi*) the army had come, its ceremony being as follows. The head of a bitch cut through the middle is placed on the right and the rear part plus entrails is placed on the left of a road. The armed forces are led between this divided victim … His two young sons (*filii iuvenes*) flanked the king … It was the custom, after the rite had been completed, for the army to perform exercises and for two double lines to run together in imitation of a battle. The royal youths (*regii iuvenes*) were made leaders (*duces*) of the sportive contest. However, it was not a mock battle but they ran together as if fighting for the kingship and many wounds were inflicted with sticks … That day each (son) held a feast for the comrades (*sodales*) who had performed together.

Pausanias (iii, 14, 8–10) describes a ritual battle at Platanistas near Sparta between two bands of adolescents, each of which sacrificed a hound's whelp to the war-god Enyalius the night before and also set trained wild boars to fight as a foretaste of the next day's contest. Plutarch's (*Romulus* 21) account of the Lupercalia includes the killing of goats, the sacrifice of a dog, and a run by the two colleges of young Luperci, naked apart from belts and striking bystanders with strips of goatskin. A bibulous and ribald feast between goat sacrifice and run is implied by Valerius Maximus (ii, 2, 9). According to a Hittite text dated c. 1300 BC,

14 A structuralist justification would be a viable alternative, insofar as "the opposition between wolf and man is mediated by werewolves … and others who … are excluded from society and belong to the wild" but "is mediated also by the domesticated dog" (Ó Cathasaigh 1986: 159).

> when troops are defeated by the enemy, they then arrange a sacrifice beside the river as follows. Behind the river they cut a man, a kid, a pup (and) a piglet through the middle and lay (one set of) the halves on one side and the (other) halves on the other side … The troops pass through the middle. However, as soon as they have reached the river sideways, they sprinkle water over them. (Kümmel 1967: 150–151)

In the medieval Irish saga of Mac Da Thó's pig, two rival sets of warriors participate in a fractious feast upon a huge pig that leads to a battle in which the great hound at the root of the dispute is cut into two (McCone 2021: 210–211).

Obvious dualities in keeping with the binary tendencies of sodalities emphasised by Höfler (1934: 159) include the sacrifice of two dogs at Sparta or one split into two among the Hittites and Macedonians, as well as aggressive behaviour by two groups of youths, namely mock battles in Sparta and Macedon or the whipping of bystanders in Rome. A shared feast is mentioned in connection with the Roman and Macedonian gatherings, and references in *Hiraṇyakeśigṛhyasūtra* 2.9.2 to Rudra's hosts as "gathering" (*pra-cinvantaḥ*), "dividing" (*vi-cinvantaḥ*) and "eating together" (*sam-aśnantaḥ*) leave Falk (1986: 61) in "no doubt that the sequence of the epithets follows an activity expected of Rudra's hosts", in which case it would resemble the Macedonian configuration. The prominent role of youths in Rome, Macedon and Sparta indicates a prototype primarily connected with sodalities. According to Parker (1983: 22), "each spring, when the Macedonian army reassembled, it was marched between the two halves of a sacrificed dog, which created what has been called an 'absorptive zone' for all its impurities … After the purification had, as it were, reconstituted the men as an army, they divided into two halves and proceeded to behave as an army in simulated fight." Cleansing and renewal are strongly implied by the sprinkling with water in the Hittite rite, and the Lupercalia not only took place in February, the month of *februum* 'purification', but are also explicitly associated with cleansing by Plutarch (*Romulus* 21). The Macedonian (and PIE?) pattern of sacrifice → mock battle → feast may be analysed according to Van Gennep's (1960: 20–21) threefold scheme of *preliminal* "rites of separation from a previous world", *liminal* "transition rites" and *postliminal* "ceremonies of incorporation into the new world": "'Purifications' (washing, cleansing, etc.) constitute rites of separation from previous surroundings; there follow rites of incorporation (presentation of salt, a shared meal, etc.)". This analysis would imply an original ritual assembling a warband to purge it of past impurity (separation), dividing it to test its mettle in a mock battle (transition) and then reuniting it for a feast (incorporation).

Anthony & Brown (2017) have uncovered evidence for the ritual sacrifice and eating of dogs at an early second-millennium BC site in the Russian steppes most likely occupied by speakers of an early IE language, and infer from this a rite of initiation into a sodality by the symbolic transformation of participants into a dog or wolf. The dog, perhaps along with a pig and/or goats, may originally also have been eaten after the sacrifice reflected in the aforementioned literary sources. The possibility of a cannibalistic component, implied by the Arcadian and *vrātya* rituals above, is raised by the Hittite version's inclusion of a human victim, which looks archaic in view of the lack of unambiguous references to human sacrifice elsewhere in the large Hittite ritual corpus (Kümmel 1967: 150–168). As they stand, the canine rituals in question are chiefly concerned with the periodic reconstitution of an army or a sodality. The Roman Lupercalia took place annually at the end of winter and, as regards Indian *vrātya*s, Falk (1986: 28) notes the *Aitareyabrāhmaṇa's* precept that "one dedicate oneself in Śiśira, i.e. January and February". This suggests a rite intended to prepare youths collectively for the warmer part of the year best suited to roving in the wilds, and presumably it could have applied to the initial constitution as well as the periodic reconstitution of sodalities.

3.2 The formation of sodalities, presentation of arms and Apollo's origins

Strabo describes the formation of youthful sodalities called *agelai* 'herds' in ancient Crete, also referring to customary fights within and between them:

> They take the younger (boys) to the messes (συσσίτια), the men's clubs (ἀνδρεῖα). Seated on the ground, they spend their time together in mean rags winter and summer alike, and they serve themselves and the men (ἀνδράσι). They join battle, both those from the same mess against each other or against (those from) other messes. And throughout each men's club (ἀνδρεῖον) a manager of boys (παιδονόμος) is in charge. The older (boys) are taken to the herds (ἀγέλαι). The most distinguished and powerful of the boys convene the herds, each gathering as many as he can. The leader of each herd is mostly the father of the convener with the authority to lead (them) forth for the hunt as well as races and to punish the disobedient. They are maintained at public expense (τρέφονται δημοσίᾳ). On certain appointed days, herd (ἀγέλη) joins battle against herd in time with flute and lyre, as they are also

> wont to do in (real) warfare, and they display the blows, some from the hand and some from iron weapons. (Strabo x, 4, 20)

Among the ancient Germani, youths passed from minority to manhood by similarly attaching themselves to a leader of their choice, who might even be a young man of suitable pedigree, but only after the formal and public grant of a spear and shield by a leader or relative:

> They do nothing public or private unless under arms. It is not customary for anyone to take arms (*arma sumere*) until the state (*civitas*) has judged him up to it. Then in the assembly itself one of the leaders (*principum aliquis*) or the father or relatives provide the young man with shield and spear (*scuto frameaque iuvenem ornant*). This among them is the mark of manhood (*toga*), this the first distinction of youth (*iuventae honos*). Before this they are regarded as part of the home (*domus pars*), thereafter of the commonwealth (*rei publicae*). Remarkable nobility or ancestors' great deserts can grant the distinction of being leader (*principis dignationem*) even to the very young (*adulescentulis*): they associate with other stronger and already long proven warriors and it is no disgrace to be seen among the companions (*comites*). The following (*comitatus*) itself has its grades according to the judgement of the one whom they follow; great is the vying of the followers (*comitum aemulatio*) as to who should have first place with his leader (*apud principem*), and of the leaders (*principum*) as to who should have the most and the keenest followers (*plurimi et acerrimi comites*). This is honour, this strength – always to be surrounded by a large circle of choice youths (*magno … electorum iuvenum globo*). It is an ornament in peace, a protection in war. (Tacitus *Germania* 13)

Paul the Deacon (*Historia Langobardorum* i, 23) has a Lombard king say that "it is not customary among us that a king's son dine with his father unless he have previously received arms from the king of an outside nation". Caesar (*BG* vi, 18, 3) claims that the Gauls "do not allow their children, unless they have reached the age for assuming military duty, to approach them openly, and they consider it shameful for a son of boyish age (*puerili aetate*) to be present in public in his father's sight".

OIr. *gaisced* is a compound of *gaí* 'spear' and *scíath* 'shield'. It basically denotes a set of these but can also mean 'feat of arms, prowess, heroism' by extension. G*abál gaiscid* 'taking arms' followed by a first expedition over the border, by

Lóegaire and by King Conchobor's son Cúscraid respectively, is central to two boasts in the Tale of Mac Da Thó's Pig (§§ 9 and 14; ed. Thurneysen 1935). In the last of Cú Chulainn's 'boyhood deeds' in *Táin Bó Cúailnge* (O'Rahilly 1976: ll. 608–824), the druid Cathbad one day foretold eternal fame "for armed action (*ar gním gaiscid*)" for "a young warrior (*óclach*) who should take up arms (*no·gébad gaisced*) on it". The precocious child "hears that. He comes to Conchobor to seek arms (*do chuingid gaiscid*). Conchobor says: 'Who has told you to?' 'My papa Cathbad.' 'We know him, indeed,' says Conchobor. He gives him a spear and shield (*gaí 7 scíath*)" (ll. 613–621). A day later the lad acquires horses and chariot in similar fashion and makes his first expedition over the border, which proves to be a resounding success.

As among ancient Germanic peoples, the presentation of spear and shield requires formal sanction. Cú Chulainn receives them from a king who is also related to him by blood as his maternal uncle in a ceremony separated from the bestowal of horses and a chariot, albeit only by one day. Official receipt of a shield and spear was clearly a prerequisite for admission to a Germanic or Celtic sodality, and these very weapons help to distinguish the wolfish footsoldiers from the cavalry on the third panel of the Gundestrup Cauldron illustrated in Figure 2 and discussed in section 3.3. Since the phase in a sodality would normally last for some time before progress to the ownership of horses, clerical aversion to the *fían* (McCone 1986: 1–6) probably accounts for Cú Chulainn's private taking of arms as well as his acquisition of a chariot before first venturing abroad accompanied only by its driver (McCone 2022: 44–45). Cúscraid's initial outing was actually called *cét-gaisced* 'first *g.*', and such expeditions were doubtless once inaugurated by *gabál gaiscid* 'taking spear and shield' rather than the acquisition of (a chariot and) horses. A hint of this is perhaps given by the detail that Cú Chulainn first makes for *Loch nEchtrae* 'Outing Lake' because "young warriors of the *fían*-sodality (*oaic féne*) are wont to tarry there", but finds none and moves on (ll. 675-689).

The Aristotelian *Constitution of the Athenians* (*Ath. Pol.* §42; ed. and trans. Rhodes 2017) states that ephebes were approved and supervisors appointed over them for a year's training and eating together at public expense (2–3) before publicly demonstrating their manoeuvres, receiving a shield and spear from the city (ἀσπίδα καὶ δόρυ παρὰ τῆς πόλεως) and being sent out on patrol to guard the territory for two years (4–5). Burkert (1975) has connected the name of the god Apollo, in an original vocalism seen in Doric *Apellōn* and Cypriot (dat.) *a-pe-i-lo-ni*, with Doric gatherings known as *apellai*. It has been inferred from the verb *apellazein* 'hold an assembly' in Plutarch's rendering (*Lyc.* 6, 1) of the oracle or 'rhetra' obtained from Delphi by Lycurgus that the assembly of Spar-

tiate citizens was called *apella*. Peters (1989: 211–213) points to traces of *apella*(-) outside West Greek and argues for a ProtoGreek **apel-i̯ā̆-* from which the god's name was straightforwardly derived by means of a possessive suffix *-(H)on-* as 'owner/lord of an **apel-i̯ā̆-*'. Being distinguished from *gamela* based upon *gamos* 'marriage' and from *paideia* based upon *paid-* 'child', *apellaia* presumably refers to an intervening phase corresponding to the *koureion* based upon *kouros* 'lad, youth' at the Athenian festival of Apaturia (Burkert 1975: 10). Peters (1989: 212–213; cf. Egetmeyer 2007) concludes that the *apella* "will, then, hardly have originally been a general assembly of the people with the ceremonial admission of the ephebes into society as a mere chief item on the agenda but rather a gathering of youthful bands … on the occasion of their departure from the domestic community of childhood … If this is the case, ἀπέλλα(ι) can be unproblematically etymologised by means of morphemes that are also historically attested elsewhere in Greek, namely as a *-i̯ā-* abstract **°(h₁)elh₂-i̯ah₂-* from ἀπελαύνω with the original meaning 'expulsion' and/or rather 'expedition' (hence Apollo the divine 'leader of the expeditions' …)". The parallel with the Germanic assemblies above is obvious.

In view of the association of IE sodalities with youth, long hair, nakedness, wolves, fire/light and dancing (section 2), an original role for Apollo as the divine patron of Greek sodalities would account for the bulk of what looks at first sight like a rather strange assortment of attributes: he typically appears as a beardless and naked long-haired youth in early Greek art;[15] his epithet *lykeios* and other connections with wolves have been alluded to earlier (section 2.2) and fully documented by Gershenson (1991); he is also connected with the sun's radiance and the *Homeric Hymn to Apollo* tells how "far-shooting Apollo rushed out the ship, like a star at mid-day, and many sparks were flying from him and the light was reaching heaven" (ll. 440–442). The long-haired, beardless lyreplayer wearing a long tunic in a procession of goddesses and otherwise bearded gods at the wedding of Peleus and Thetis on an early sixth-century BC Attic bowl is "just the Apollo who appears most often in ancient art … the epitome of young male beauty" (Carpenter 1991: 43; cf. plates 38 and 69). His musical skill fits this picture, insofar as the lyre has already been seen providing musical accompaniment for dancing *kouroi* and Cretan sodalities on the march.

15 E.g., Φοῖβος ἀκερσεκόμης 'Phoebus (Apollo) of the unshorn locks' at *Il.* xx, 39, images on early coins (e.g., Seltman, 1933: plate X, nos. 5 and 7) or statues such as an early seventh-century BC naked long-haired *kouros* inscribed with the name Apollo in the Boston Museum of Fine Arts (reproduced in Ratto 2007: 100).

3.3 The *Dolonea*, Cú Chulainn's last 'boyhood deed' and a scene on the Gundestrup Cauldron

At the end of *Iliad* viii, the successful Trojan army camps out on the plain between their city and the Greek encampment, illuminating this and the night separating two days of fighting with numerous camp fires. At an assembly summoned by a despairing Agamemnon at the beginning of the next book, Nestor's advice that the younger *kouroi* be placed on guard duty is accepted. Thereupon "guards rushed forth under arms around Nestor's son Thrasymedes … and around Meriones … There were seven leaders of the guards, and a hundred *kouroi* armed with long spears accompanied each of them. They then went and sat between the ditch and the wall" (ix, 80–87), i.e., on the boundary between the camp within and the plain outside. Agamemnon led the seniors (*gerontes*) back to his quarters for a feast, at which it was decided to offer Achilles generous inducements to resume arms. After the failure of this embassy, the book concludes with the assembled kings' dispersal to bed. The tenth book or *Dolonea* opens with a visit from an agitated Menelaus to his sleepless brother Agamemnon, as he was about to go and consult Nestor, whose own son Thrasymedes and Meriones were joint heads of the young guards (57–59).

Nestor not only agrees to check on the *kouroi* but also recommends taking others along. They duly find the youths fully alert like dogs who have heard the sound of a wild beast while watching sheep (180–193). After crossing the ditch onto the plain along with the youths' two leaders, they take counsel "in the open, where there appeared clear of fallen bodies a place from which mighty Hector had turned back, when the cover of night came, after destroying Greeks" (199–201). In this ambience of death, darkness and menacing Trojan fires, Nestor proposes a reconnoitring expedition. After Tydeus' son Diomedes and Odysseus had been selected,

> the staunch warrior Thrasymedes gave the son of Tydeus a double-edged sword – for his own had been left by the ship – and a shield. And around his head he put a helmet (*kyneē*) of bull-hide without a crest or a fixture for one. It is called a skull-cap (*kataitux*) and protects the heads of young men (*aizēoi*) in their prime.[16] And Meriones gave Odysseus a bow and quiver and a sword. And around his head he put a helmet (*kyneē*) made of hide … and outside the teeth of a white-tusked boar, set thickly here and there, held it

16 Cf. the "*aizēos* man (αἰζηὸς ἀνήρ) testing his youthful prime (πειρώμενος ἥβης)" at *Il.* xxiii, 432.

> well and cleverly … It had been taken from Eleon by Autolycus … Finally, it was placed around and covered Odysseus' head. (x, 254–271)

This *kyneē*, a dog-skin etymologically and also the term for Hades' invisibility-inducing headgear (*Il.* v, 845), had been acquired in a raid by Autolycus 'Werewolf', the name of Odysseus' own maternal grandfather. Young Meriones gave it to Odysseus on the verge of a raid like the one in which his grandsire (it seems) had taken it. Thus equipped, Diomedes and Odysseus set out through the dark night, corpses and blood (297–298).

Meanwhile, Hector proposed a reconnoitring foray from the Trojan camp. The 'swift-footed' Dolon volunteered in return for a promise of Achilles' horses and chariot and "forthwith slung a curved bow and arrows around his shoulders, donned the skin of a grey wolf on the outside and a cap of weasel skin (*ktideē kyneē*) on his head and grasped a sharp javelin" (334–335). Espying him, Odysseus and Diomedes pursued him like two dogs after a young deer or a hare. Diomedes caught Dolon and struck off his head, despite the ransom he had promised and the information he had given about the Thracian king Rhesus and his wonderful horses (350–357). Then "they took from him the weasel-skin cap off his head and the wolfskin and bent bow and arrows and long spear" (458–459), which Odysseus promised to Athene while requesting her guidance. Having hung the spoils on a duly marked tree, they made for the Thracian encampment and found its occupants asleep around the slumbering Rhesus and his horses. Diomedes killed twelve Thracians and their king while Odysseus took the horses. Returning to a joyous reception in the Greek camp, "they bound the steeds with well-cut straps to the manger for horses" (566–569). After Odysseus had set Dolon's bloody spoils aside for dedication to Athene, the victorious pair plunged into the sea and "when the swell of the sea had washed the abundant sweat from their skin and they had been cooled (ἀνέψυχθεν) in their dear heart, they went into well polished baths and bathed. Having bathed and anointed themselves thoroughly with oil, they sat down for a meal and made libations to Athene of honey-sweet wine drawn from a full drinking bowl" (576–579).

After being initiated into the status of *kouroi* and acting like them for a night, Odysseus and Diomedes marked their return from the outside to their regular status in the three basic stages identified by van Gennep (section 3.1): *preliminal* separation/purification from the previous state by taking a cooling natural dip and then a civilised bath; *liminal* transition by anointing and presumably clothing themselves; *postliminal* (re-)incorporation by sharing a meal. Substitution of Homeric mature warriors and *kouroi* for later hoplites and ephebes makes it possible to view

the *Dolonea* in terms of Vidal-Naquet's postulate (1986: 141) of a "twofold structure: on one side the hoplite, who fights by day, in ranks, face-forward, supporting his fellows, on the level plain; and on the other the ephebe (or the Spartan *kryptos*), who fights by night, unaided, resorting to tricks … skulking on the frontier … Surely we have here Culture on one side, Nature on the other; on one side Savagery …, on the other Civilization". In a similar context, Vidal-Naquet (1986: 119) remarks:

> It is in such terms, perhaps, that one might explain why on the Chigi vase in the Villa Giulia in Rome there is a line of men creeping through the undergrowth, over against the line of horsemen and the line of hoplites (the Chigi vase is Late Corinthian). And it is by reference to the same opposition that we can understand why Nestor has two different initiations into the art of war in the *Iliad*, first as a young man, lightly armed, taking part in a cattle raid at night, and then as a heavily armed adult (*Iliad* 11.670–762).

The young Trojan 'wolfskin' is killed on a mission to the Greek camp motivated by the promise of Achilles' splendid horses and chariot. Having been effectively initiated as temporary *kouroi* by receiving arms from the youths' two leaders, the Greek pair set out on foot into the darkness of night, rather like Tacitus' fearsome and ferocious Germanic nocturnal fighters (section 2.6), and returned home from their nocturnal foray in triumph on magnificent captured steeds. As observed earlier (section 2.2) in relation to an account of an Arcadian spending nine years as a werewolf and then swimming back across water to resume his human appearance and clothing, Odysseus' return to human civilisation after nine years away was similarly marked first by a swim through a wild sea and then by a civilising bath and receipt of clothes after emerging naked from a night in a wood like a ravening lion with blazing eyes.

Cú Chulainn's first expedition above was initiated by his formal presentation with arms and concluded by his return in a chariot with trophies of his extraordinarily successful fighting and hunting, which had roused him to such an extent that he demanded combat from his own people. Topless women were sent out to him instead and the boy's embarrassment made it possible to seize him. His ardour then had to be cooled by putting him into a vat of cold water (*i ndabaig n-úar-uisci;* O'Rahilly 1976: l. 815). The first vat burst, a second one boiled but a third was only heated moderately. He then emerged, was clothed by the queen and seated at the king's knee. As Ó Cathasaigh (1986: 160) puts it, "he has been re-incorporated into society: his wolfish ferocity and strength will henceforth be subordinated and indeed harnessed to his social role".

Like the *Dolonea*, Cú Chulainn's final 'boyhood deed' is an artful literary refraction which not only individualises the presentation of arms and ensuing departure but also greatly compresses the length of time normally spent away from home in a sodality before returning home and acquiring equine transport or *vice versa*. A more realistic 'rite of passage' from footsoldiers to equestrian warriors by successive immersion in a vat presumably containing water is depicted in the image in Figure 2 of an internal panel belonging to the second- or first-century BC Gallo-Thracian Gundestrup cauldron in the National Museum of Denmark, Copenhagen. The lower row of males facing the vat for immersion is identified as a sodality not only by the shields and spears which they bear but also by an obvious wolf facing them. The upper row consists of riders moving away from the vat, presumably after being initiated into their new status by immersive 'baptism'.

3.4 The transition from vagrancy to a settled existence, and the growth of a beard

The two principal ceremonies identified above were hardly mutually exclusive. Formal presentation of a spear and shield ratified a youth's passage to the age-grade typically spent outside the home territory. Sacrifice of a dog, probably accompanied by a purificatory ritual and feast, hallowed sodalities once they had

FIGURE 2. Rite of passage on the Gundestrup cauldron, with details showing a rider from the upper row (left) and sodality youths on foot from the lower row (right). Photo: Roberto Fortuna & Kira Ursem (National Museum of Denmark, inv. no. C6562-74).

been formed, probably by joining a leader of choice like the ancient Cretan and Germanic youths as described by Tacitus (cf. Caesar as cited in section 2.1) and Strabo above. The important point for present purposes is that both rituals were group affairs, since even individual presentations of arms seem typically to have been combined into a collective public act. The youths involved seem likely to have been coevals as a rule, insofar as they had reached the age for initiation together on account of having been born in more or less the same year.

Leaving a sodality seems also to have involved rites of passage such as the aforementioned immersion ceremony, a typical way of marking death to an old and rebirth to a new way of life. This too is represented as a group affair on the Gundestrup cauldron. Falk's discussion of the Indian *brāhmacārin* or Veda-student includes the following observations about that system and an earlier one from which the *vrātya*s are also held to have evolved:

> The period of study for an individual youth follows a fixed pattern described, for instance, as follows by HGS [*Hiraṇyakeśin-Gṛhya-Sūtra*] 1.1–14. At the age of about eight years the child has his hair shaved, is bathed and brought to the teacher … He receives a new garment and a belt as well as a skin … Around the sixteenth year he ends his study of the Veda. On a riverbank he removes his clothing, casting belt, skin and staff into the river. Then his hair and beard are shaved, and he is washed and anointed. He receives

> golden jewellery, new clothing and sandals. He travels on a wagon to the village … He returns to his parents and marries shortly thereafter (HGS 1.19,1) … There are sufficient indications that the teacher once had not just one but a group of students … According to the educational process just depicted the student spends some eight years with the teacher. That this was once different is shown by some texts which speak of a twelve-year study of the Veda … interrupted by an intermediate dedication dividing two periods with different objectives … In this second period lasting three … or four … years the student is supposed to live in the wilderness … and wear black clothing … (in a manner) very reminiscent of the vrātya (66–68). So far, we have found … remarkably numerous parallels in the nature of Veda student, Vrātya and Sattrin that extended to organisation, vows, denial, clothing, poverty and a connection with death (70). (Falk 1986: 66–72)

Bathing, shaving and the removal/donning of clothes are prominent in the two main transitions above, the second of which features the provision of wheeled transport and is a prelude to matrimony. Marriage was a group affair in ancient Crete, where "those selected at the same time (κατὰ τὸν αὐτὸν χρόνον) out of the boys' herd (ἐκ τῆς τῶν παίδων ἀγέλης) are obliged to marry all together (γαμεῖν … ἅμα πάντες) but do not take the married girls to themselves straightaway until they are up to managing house affairs" (Strabo x, 4, 20). In the Hittite legend at the beginning of section 5.1, thirty brothers of the same age are inadvertently offered their thirty younger sisters in marriage upon returning home after years away, although the youngest objects just before the tablet frustratingly breaks off. A band of young male bachelors could also resort to more violent means of jointly acquiring wives. Romulus and his followers seized Sabine maidens at a festivity held in his recent foundation, Rome (e.g., Livy i, 9). In the *Odyssey* (xxiv, 104–113), the sight of the hundred or so recently slaughtered and similarly aged young suitors descending to Hades causes Agamemnon's ghost to speculate that they had either been drowned at sea or killed on shore while rustling livestock or trying to gain possession of a city and its women. The Russian folk hero Volx (section 5.1–5.2) bids his seven thousand young followers "keep hacking old ones and young ones, leave none in the realm for breeding, leave only by selection – not many nor a few, seven thousand – darling beautiful maidens", whom they duly marry after their victory (Jakobson 1966: 334–338; ll. 170–174, 176–178 and 195–199). A historical example is provided by the Mamertini, who were sent forth from Samnium in central Italy *en masse* at the age of twenty (section 5.2) and entered the service of Messana in Sicily but then expelled or slew its male citizens, taking over their

wives, children and control of the city in 289 BC (Polybius i, 7, 2–4). The evidence thus clearly indicates that, when members of a sodality returned home or settled elsewhere, they would normally marry, frequently or even ideally as a group.

The Old Irish legal tract *Críth Gablach* (ed. Binchy 1941) asks:

> Why is this man [the lowest grade of freeman] called a *fer midbad* [arguably 'man of middle huts']? Because he has come from childhood (*a mmaici*), from the law of fosterage (*a ddligiud altruma*), and has not reached manhood (*nad·roig fer-taid*). Is a particular age assigned to the *fer midbad* who swears concerning penalties? An age of fourteen years is assigned. The reason he cannot maintain testimony is that he who has not already taken property or inheritance is not capable of testimony except regarding every trifle before seventeen years (§6).

"The other *fer midbad* who maintains testimony is more substantial" (§7: *trebairiu*, comparative of *trebar* 'substantial, propertied, solvent, prudent', a derivative of *treb* 'farm, household') and is aged

> from fourteen years to twenty, to encircling beard (read *cúairt-ulchai*). Though it be that he acquire the estate of a cow-freeman (*bó-aire*) before he have an encircling beard, his oath does not avail except according to the oath of a *fer midbad*. Moreover, though he be without taking inheritance until old age, his oath still does not go beyond the *fer midbad* … His food-render … is the food render of an *óen-chiniud*, a man who does not occupy/cultivate (*nad·treba*) property or land for himself … No one is allowed to set up his house as long as he is a minor (*maice*, lit. 'of childhood') until he is capable of separate landowning (*sain-trebad*) and of taking possessions, (and this applies to) a *fer midbad* as long as he be an *óenchiniud* … If the property of his house increase until it be the property of a cow-freeman (*bó-aire*) or something higher, the due of his fore-purchase increases to him until the render of his house accords to his rank. (§9)

Clearly, there was an overlap between the unmarried *fer midbad* and the propertiless *óenchiniud* already seen as a naked berserk and implicit *fían*-member[17]

17 Whose lack of property is clearly implied by the aphorism *féinnid cách co trebad* "everyone is a *fían*-member until (taking up) householding/farming" in *Cormac's Instructions* §31, 10 (ed. and trans. Meyer 1909).

(section 2.2). By contrast, the "baptised freeman (*aithech baitside*)", the lowest grade of adult landowner recognised by *Críth Gablach*, was expected to be married, pious and "without robbery, without plunder, without killing people (*cen gait, cen brait, cen guin doíne*)" (ll. 142–145), in effect untainted by the *fían*-activity of *díberg* 'brigandage'.[18] It appears (McCone 1990: 203–205) that a youth short of property was a lower *fer midbad* between fourteen and seventeen and then moved up to the higher level, any further progress being dependent on the acquisition of sufficient wealth. A young man over fourteen who had acquired this was an upper *fer midbad* forthwith and would progress to the grade of *bó-aire* or the like on attaining the age of twenty. The term *fer midbad* thus seems to have covered two distinct types: an *óenchiniud* fated to remain a *fer midbad* until he either inherited the wherewithal to move up the social scale or died, and a young heir destined to proceed to a higher status in his twentieth year. Evidently, the age of departure from a *fían*-sodality depended upon when or, indeed, if one acquired the wherewithal to settle down at a suitable social level, something which had presumably eluded the propertiless aged warriors among the Germanic Chatti (section 2.6).

Fosterage plays a prominent role in Rome's foundation legend and related narratives (Bremmer 1976: 73–74) likely to derive from a PIE myth in which an exposed king's son is initially suckled by a she-wolf in the wilderness (section 4). In the earlier Indic system inferred by Falk above, some eight years spent in the parental home were followed by a further eight of effective fosterage under a teacher's tutelage along with other boys and another three or four as a member of a band in the wilds before returning home to be married. In early medieval Ireland, "the laws distinguish two types of fosterage. One is fosterage for affection (*altramm seirce*) for which no fee is paid. The other type of fosterage is for a fee … The arrangement to place a child in fosterage is a legal contract" (Kelly 1988: 87). A legal tract on sick-maintenance (*othrus*) called *Bretha Crólige* (ed. and trans. Binchy 1938) states clearly that the "grade of childhood (*grád maice*)" ceased at "the end of seven years" and likewise that the "sick-maintenance of a child (*mac-othrus*)" applies "until the end of seven years", being succeeded by the "soft food of fosterage (*máeth-biad altruma*)" from seven to ten, and thereafter by "a man's sick-maintenance (*fer-othrus*)" (§52). Spartan boys were taken from the parental home at the age of seven and enrolled into 'herds' (*agelai*) of 'jointly nur-

18 Cf. the "profession of their father and grandfather" *brat 7 gat 7 guin daíne 7 díberg* practised by Conaire's foster-brothers, the sons of the *fían*-member Dond Désa in *Togail Bruidne Da Derga* (ed. Knott 1936: ll. 193–194).

tured' (*syn-trophoi*; Plutarch *Lycurgus* 16, 4), a compound semantically equivalent to Irish *com-altai* '(jointly nurtured,) foster-brothers'.

Icelandic law specifies the period of legal fosterage as from eight years or less to sixteen years and a literary example of fosterage beginning at the age of seven is found in *Laxdœlasaga* 16 (Kühlmann 2017: 46–47). As just seen, *Críth Gablach* explicitly makes fourteen the age of transition from fosterage to status as a *fer midbad*. The alternative of seventeen in *Cáin Íarraith* (Kelly 1988: 88) seems most likely to be an innovatory encroachment upon the period spent in a *fían* in line with clerical hostility to that institution (Kühlmann 2017: 62–63), perhaps simply by treating the three-year phase of lower *fer midbad* or similar *flescach* 'whipster' (Kelly 1988: 82 n. 107, Kühlmann 2017: 58 and 60) as an extension to fosterage.[19]

The Russian hero Volx formed a sodality of fifteen-year-olds (section 5.1). According to Xenophon (*Cyropaedia* i, 2, 3–15), the Persians in the time of Cyrus the Great had a "free place of assembly" next to the palace and divided into four parts: "of these, one is for the children (*paides*), one for the adolescents (*ephēboi*), another for the adult men (*teleioi andres*) and another for those over the age of military service", the last group being then referred to as *geraiteroi* (4). The passage from child to ephebe took place in the sixteenth or seventeenth year (8), adulthood was reached after a further ten years (12), and after twenty-five more one joined the elders (*geraiteroi*) who sat in judgement (13–14). One stage had to be successfully completed before proceeding to the next and the education of their *paides*, presumably after spending their earliest years in the parental home like the Spartan *syntrophoi* above, was only available to the wealthier citizens as a rule. The adolescents, whose main activities were hunting, military training, policing and carrying out the king's commands, lived together beside the place of

19 This could account for the discrepancy in *Cáin Íarraith* between seventeen years of fosterage for a boy but fourteen for a girl (Kelly 1988: 88). The above statement about the end of childhood at seven in *Bretha Crólige* §7 is directly followed by "thereafter they are compensated according to the honour of their father or of whoever fosters them to the end of seventeen years, after which they are compensated according to the grades of freemen (*a grádaib féne*) or their own honour-prices (*as-a ndírib féin*)". While this could be a provision "for fosterage to continue up to seventeen for both sexes" (Kelly 1988: 88), it need imply no more than treatment as a minor between the age of seven and seventeen. That would include the last three as a propertiless lower *fer midbad*, the dependence of whose compensation upon the status of his father or foster-father, despite his apparently no longer residing with either, would be in keeping with the inadmissibility of his unsupported testimony in a matter of substance according to *Críth Gablach* §6.

assembly and were mostly unmarried. Widengren (1969: 84–95) deduces a similar system from Middle Persian sources stating that a male would be a student (*kōtak, rētak*) from seven to fifteen years of age, a young man (*yuvān mart*) from fifteen to twenty, then an adult and finally an elder exempt from military service. Such four-grade systems are quite widespread (Schurtz 1902: 59 and 125), and Falk (1986: 94) notes close Indian correspondences: *brahmacārin* (8–16 years), *yuvān*, *vratacārin* or *marya* (until 20), 'middle-aged' *madhyama-vayasin*, and 'final-aged' *uttama-vayasin* or elder. Burkert (1983: 90–91) argues that the nine years spent as a werewolf by certain Arcadians can hardly have been initiated later than the age of sixteen.

The available evidence points to 7 years as the normal age for being taken into fosterage and a range of 14–16/17 years for admission to a sodality. The 9 to 10 years apparently prescribed for membership of a sodality in ancient Persia and Arcadia would imply departure from it around the mid-twenties, but the age of 20 and/or growth of a beard figure prominently in *Críth Gablach* and elsewhere above as the sign of progress to full manhood. A minimum age of 20 for marriage and pressure to remain an unmarried member of a sodality beyond that among the ancient Germani may be inferred from Caesar's statement (*BG* vi, 21, 4–5; cited in section 2.1) that they esteemed males who remained virgins for longest, and condemned sex with a woman before reaching the age of twenty. This watershed was marked by the growth of an encircling beard not only in the case of the early Irish *fer midbad* but also in legendary Greek examples. Pindar (*Olympian* i, 67–71) has Pelops' thoughts turn to the wooing of Hippodamea when hair covers his chin. Odysseus' son Telemachus, having spent the twenty years or so since his father's departure for Troy at home as something of a 'mother's boy', eventually asserts himself at the prompting of Athene (in Mentes' guise), undertakes an expedition abroad and, after returning from this, is mentioned as having an evidently new beard (*Odyssey* xviii, 176 and 269–271). Conversely, beardlessness could be seen as a sign of immaturity, as when the people of Tara question the claim of a "beardless young man" to the kingship in the *Destruction of Da Derga's Hostel* (section 2.1), or an older warrior like Nad Crantail is reluctant to fight the "beardless lad" Cú Chulainn in *Táin Bó Cúailnge* (O'Rahilly 1976: l. 1450). Since a male does not usually acquire much facial hair until his late teens, beards could hardly have distinguished a sodality's younger members, whose very beardlessness may have marked them off from married adult males. For instance, on the Gundestrup cauldron the beardless young warriors appearing on the internal panel illustrated in Figure 2 and some others contrast with older looking bearded individuals on one internal and several external panels in alternation with female

figures.[20] More mature members of a sodality would presumably be free to grow their hair long on the face as well as the head. This practice is attested among ancient Germanic peoples such as the Chatti (section 2.6), and Cú Chulainn's implicitly bearded adversary Nad Crantail was a *fénnid* '*fían*-member' (O'Rahilly 1976: l. 1397).

Solon's (poem 27) early sixth-century BC division of a man's life into ten seven-year periods begins with the following three: a non-pubescent and still immature child (παῖς μὲν ἄνηβος ἐὼν ἔτι νήπιος) loses his (first) teeth "in seven years" (i.e., by his seventh birthday; ll. 1–2); after completion of another seven years, "he manifests the signs of incipient pubescence/adolescence (ἥβης ἐκφαίνει σήματα γιγνομένης)" (l. 4); in the third seven, while his body is still growing, his chin becomes hairy (γένειον … λαχνοῦται, ll. 5–6; i.e., he grows a beard). This scheme broadly corresponds to the less strictly symmetrical sequence inferred above: (a) a minor in the paternal home, until the age of 7 as a rule; (b) a minor in fosterage with the mother's kin, until the age of 14 (or up to 2 or 3 years later); (c) an adolescent in a sodality, until growth of a man's beard conventionally placed in the 21st year (i.e., when aged 20). Solon's symmetrical scheme recognised (a) early childhood (1–7 years as a *pais an-ēbos*), (b) later childhood to the onset of puberty (7–14 years as, in effect, a *pais prōt-hēbēs*),[21] and (c) adolescence to growth of a man's beard (14–21 years of *hēbē*, i.e., as an *ep-hēbos*). Odysseus had been promised riches (κτήματα) by his maternal grandfather Autolycus 'Werewolf' if, after reaching *hēbē* (ἡβήσας), he came to his mother's great house (μητρώϊον ἐς μέγα δῶμα; *Od.* xix, 410–412). When he did visit, he received a permanent scar from a boar before killing it on a hunt with his maternal uncles (413–466). His son Telemachus, by now almost twenty years old and growing a beard as just noted, was approaching *hēbēs metron* or the "full measure/limit of *hēbē*/adolescence" marking the end of that phase: for instance, while he was away on his expedition to Pylos and Sparta, the suitors' evil ringleader Antinous prayed for Zeus to destroy his life "before reaching the limit of adolescence (πρὶν ἥβης μέτρον ἱκέσθαι)" (*Od.* iv, 668), and after his return Penelope, who would not countenance marrying again and leaving home "as long as my child was still immature (νήπιος) and irresponsible", concedes "but now … he is big (μέγας) and reaching the limit

20 A complete set of fine photographs is published in the companion volume (Farley and Hunter 2015: 260–271) to an exhibition on the Celts at the British Museum in London, to which the Gundestrup cauldron had temporarily been loaned for display.

21 At *Iliad* vii, 518, Hector proposes making "boys approaching puberty and old men with greying temples (παῖδας πρωθήβας πολιοκροτάφους τε γέροντας)" guard the city while the Trojan army passes the night out on the plain.

of youth (ἥβης μέτρον ἱκάνει)". Full citizen rights such as attending the place of assembly were reserved for those over thirty at Sparta (Plutarch, *Lyc.* 25, 1) and Solon (27, 9–10) recommended life's fifth hebdomad (28–35 years) for matrimony and offspring. However, the coming of age at about twenty known as *hēbēs metron* is explicitly linked with marriage at *Iliad* xi, 221–228, where it is noted that the maternal grandfather of the Trojans' Thracian ally Iphidamas fostered (ἔθρεψε) him "but, when he reached the limit of glorious youth/adolescence (ἐπεί ῥ' ἥβης ἐρικυδέος ἵκετο μέτρον), kept him there and gave him his daughter" only for him to set off for Troy after marrying (γήμας).

The individual departure of a boy aged 7 from the parental home to be fostered by a kinsman of his mother's should have been straightforward enough as a rule, but the need to recruit viable groups for admission to and release from sodalities seems, in practice, to have been met by allowing some leeway after the 14th and before the 21st birthdays of individual participants. In the former case, a youth's admission to a sodality may also have been postponed for a year or two after the minimum age of 14 if he was not deemed physically mature enough. In the latter, a further requirement of sufficient property to marry and set up house would probably have prevented individuals lacking the necessary means from leaving a sodality until well after the age of 21 or sometimes never. Nevertheless, in view of further evidence presented below (section 6) a somewhat idealised basic sequence of seven-year phases may well be of considerable, indeed PIE, antiquity.

4 Romulus, Cyrus, Cormac, Zeus and the (P)IE myth of the suckling she-wolf

Before concluding that "testimony about wolf-children … may be safely given over to the student of Comparative Mythology" (1863: 32), the pioneering anthropologist E.B. Tylor made the following observation in what seems to have been the first study of the topic:

> Stories of children being brought up by animals are found among the popular myths of several parts of the world. Of these, the tale of Romulus and Remus is the best known example. Here the idea of children being suckled by a she-wolf is joined to another incident often found in the old wonder-tales, the setting adrift of children in an ark, after the manner of the infant Moses in the ark of bulrushes. The infant Cyrus is said to have been brought up by a bitch. (Tylor 1863: 29)

According to Livy (i, 3–8), Amulius replaced his elder brother Numitor as king of Alba, killed his sons and made a Vestal Virgin of his daughter. When she bore twins and claimed the god Mars as their father, Amulius ordered her to be imprisoned and her offspring set adrift on the River Tiber. However, the vessel carrying them floated to dry land, where they were suckled by a she-wolf (*lupa*) drawn to their cries. Faustulus, the king's herdsman, found her licking the twins, whom he brought home and presented to his wife Larentia. "Thus born and brought up, when they had first reached maturity, they … traversed the woods hunting. Their bodies and spirits having thus been strengthened, wild animals alone no longer sufficed but they attacked robbers laden with booty, divided the takings among the herdsmen … as the band of youths (*iuvenes*) grew daily" (i, 4; cf. Plut. *Rom.* 6, 3). The twins were ambushed by their victims at the Lupercalia, when "naked youths (*nudi iuvenes*) run in sportive frolic" (5, 2). Remus was captured and handed over to Numitor. Faustulus now told Romulus of his suspicions about the twins' origins, while Numitor guessed Remus' true identity after learning that he was a twin. After hatching a plot with Numitor, killing Amulius and restoring their maternal grandfather as king of Alba, the twins led an emigration to the place of their exposure and upbringing. Disagreement about the new settlement's name and the ambiguous outcome of auspices agreed upon to decide this led to a conflict in which Remus was killed – by his own brother after insultingly leaping over Rome's nascent walls according to some. Romulus thus became the sole founder and ruler of Rome, the population of which grew as the new city became a place of refuge for all and sundry.

In this narrative, a king's grandsons were exposed in the wilds, reared successively by a she-wolf and herdsmen, and revealed in the wake of a quarrel, one of them finally becoming king of a new state. Herodotus' account (i, 107–130) of Cyrus the Great's (†529 BC) birth and accession to the throne displays a similar pattern.

Warned against his daughter's child in a dream, the Medan king Astyages married her off to a quiet Persian and left the elimination of the son later born to her in the hands of Harpagus, who ordered a herdsman to take him to his mountainous home and abandon him in a remote spot. The name of the herdsman's wife "was Kyno in the Greek tongue but Spaka in Medic, for the Medes call the hound (*kyn-*) *spak-*" (110; cf. Avestan *spā* 'hound' < PIE **k̂u̯ō*), and she persuaded him to switch the royal child with their own still-born son and let her rear him as their own. At the age of ten the boy was chosen king in a children's game and had an aristocratic Mede's son flogged for disobedience. The latter's father protested about this presumptuous act to the king, who duly summoned the lad, was

struck by his courage and appearance, and elicited the truth from the frightened herdsman. Harpagus was gruesomely punished for his negligence by being given his own sons to eat, and Astyages' magi declared that the threat posed by his grandson had been removed by his kingship in the game. Cyrus was restored to his real parents and "kept saying that he had been reared by the herdsman's wife and praising her throughout, and Kyno ['Bitch'] was always on his lips. So the parents took up this name and … put about a rumour that a bitch reared the exposed Cyrus" (122), a rationalisation with a parallel (already obvious to Tylor 1863: 29) in a variant of the Roman legend.[22] Harpagus helped Cyrus to defeat Astyages and replace him as king, thereby founding a Persian empire. In Justin's broadly similar account (i, 4–6) apparently deriving via Trogus from a since lost source,[23] the herdsman's wife asked him to bring her the exposed child and, returning to the wood, he "found beside the child a bitch (*canis femina*) offering her teats to the little one and defending him from wild animals and birds". When he got home with the infant and the bitch, his wife was so taken with the boy that she persuaded her husband to let her nurture him and to expose her own new-born son instead. Later, she was called Spaco 'Bitch' and the boy was named Cyrus.

The first publisher (Talbot 1872) of an Akkadian account of King Sargon's (†c. 2300 BC) early upbringing noted evident affinities with Moses, Romulus and Cyrus. Soon afterwards, J.G. von Hahn (1876) included the last two with 7 Greek, 3 Germanic and another 2 Indo-Iranian examples on a large table (inserted between pages 340 and 341) devoted to an "Aryan expulsion/exposure and return formula" (*arische Aussetzungs- und Rückkehr-Formel*) comprising 13 main items grouped under the three headings of birth, youth and return. An apparently independent subsequent formulation (up to return and confrontation with parents) by Freud's student Otto Rank (1909) also included Romulus and Cyrus, but the latter was absent from a longer and later one by Lord Raglan (1936: 174–175). Unlike Von Hahn, both recognised non-IE examples of this "biographical pattern", as Taylor (1964) terms it in his summary and discussion of all three as well as Campbell's basic heroic "monomyth" (1949). De Vries (1961: 281–282) acknowledges the contributions of Von Hahn and, with reservations, Lord Raglan before presenting (282–290) his own more detailed and systematic "model of a heroic life" (*Modell eines Heldenlebens*), which refers to a range of heroic figures, includ-

22 Livy i, 4, 7: "there are those who think that Larentia was called *lupa* ('she-wolf, prostitute') for making her body generally available and that this gave rise to the story and miracle".

23 Perhaps the *Persica* of Ctesias of Cnidus, court physician early in the reign of Artaxerxes II (404–359 BC).

ing Cyrus as well as Romulus and Remus, at suitable points. In this scheme, IIIB "the expelled/exposed child is suckled by animals" has 10 subdivisions including (b) "by a she-wolf: in Greek saga, Leucastus and Parrhasius, in Roman, Romulus and Remus, in Irish, Cormac mac Airt" and (g) "by a bitch: apart from Cyrus, the Greek hero Neleus should be mentioned here" (De Vries 1961: 285). De Vries' otherwise largely neglected taxonomy was used by Ó Cathasaigh (1977) as a framework for his analysis of "the heroic biography of Cormac mac Airt".

The Roman twins and Cyrus of Persia have enjoyed a high profile in studies of the heroic biographical pattern ever since its overall shape and particular components such as a she-wolf, bitch or other animal wet-nurse began to attract scholarly attention about a century and a half ago. The legendary Irish king Cormac, by contrast, has been almost completely ignored outside the field of Celtic studies. For instance, although Cyrus and Romulus figured prominently in Binder's (1964) study of the "expulsion/exposure of the royal child", Cormac was absent even from his concluding inventory of 121 examples, as well as from Lewis' (1980: 152–195) overlapping one of some 70 instances.

According to the earlier of two somewhat different, not least in dynastic orientation, but obviously related versions of his birth-tale,[24] Cormac was conceived in a one-night stand between Art, the king of Tara, and his host's daughter Etan, on the eve of Art's death in battle and replacement by his adversary, Mac Con. On her way to Lugne Fer Trí, whom Art had designated as his son's foster-father, Etan gave birth but, while she and her handmaid slept in the aftermath, the baby was taken off to her cave by a she-wolf. When informed by her of the child's disappearance, Lugne offered a reward. Cormac was found playing among the wolf's cubs at the cave's mouth by a certain Grec, who brought him to Lugne and was duly recompensed by him with lands for the Grecraige. Lugne's predictions of the lad's future greatness included one that he would be "a *fían*-warrior" (Hull 1952: l. 57). One day, Cormac struck one of his foster-brothers at play and was taunted with his unknown father as a result. Lugne then revealed that he was the former king of Ireland's son and the pair set out for Tara, where they were well received. Cormac was recognised as "the son of the true king" after rectifying a false judgement by Mac Con, who was deposed in his favour. Ireland enjoyed great prosperity throughout the new king's reign.

24 *Genemuin Chormaic* (ed. and trans. O'Grady 1892: i, 253–256, and ii, 286–289; ed. Hull 1952) and *Scéla Éogain 7 Chormaic* (ed. and trans. Ó Cathasaigh 1977, 119–127). For summaries of both and a discussion of the dynastic aspects, see Ó Corráin (1986: 147–151; summarised by McCone 1990: 254–255).

Despite some striking basic similarities, the details of this account are too different from the prestigious legend of Rome's founder for direct derivation from it to be at all plausible. As Ó Cathasaigh (1977: 54–55) puts it, "the suckling of the hero by an animal is an integral part of the international heroic pattern" but "it is only in the form of a 'twin saga' that the Romulus story could have been known in Ireland and there is nothing in Cormac's biography to suggest that it has borrowed from such a source". In all three narratives just summarised,

(a) the lives of the children destined to rule are threatened by a hostile king, who is either (i) a 'usurper' replacing their (grand)father [Romulus and Remus, Cormac] or (ii) an actual (grand)father determined to thwart a prophecy [Cyrus];
(b) as a result, they spend their early life in the wilds, having been either (i) expelled soon after birth and exposed there [Romulus and Remus, Cyrus] or (ii) born there to an absconding mother [Cormac];
(c) they are first protected and suckled by either (i) a she-wolf living in a cave [Romulus and Remus, Cormac] or (ii) a bitch [Cyrus], and
(d) then brought up by either (i) humble herdsmen [Romulus and Remus, Cyrus; in the latter's case through (i+) a deception involving a substitute baby] or (ii) inferior dynasts [Cormac];
(e) a dispute leads to the revelation of their true origins as a king's descendants;
(f) they go on to depose their persecutor and become king either (i) in his stead [Cyrus and Cormac] or (ii) elsewhere [Romulus, after the restoration of his maternal grandfather, emigration and the death of Remus in the wake of fraternal strife].

As the aforementioned inventories made by Binder and Lewis substantiate, various at least partially comparable configurations of what Ó Cathasaigh (1977: 20) fittingly terms "the international heroic biography" are too widespread for it to be regarded as the specifically IE phenomenon implied by Von Hahn's 'Aryan' tag (cf. Ó Cathasaigh 1977: 4). For instance, Cornell (1995: 62) concludes with some justice regarding the background to Rome's foundation legend that "the recurrence of the same motifs in so many different contexts cannot be explained by literary or oral diffusion, or by common inheritance within a particular ethnic or linguistic family … Rather, they must be seen as popular expressions of some universal human need or experience, occurring in times and places that are worlds apart". In that respect, "it seems true that the heroic biography is concerned essentially

with life-crises, and there is much to be said for the view that the episodes in the heroic biography are the mythic correlatives of the rites of passage (border experiences) identified by Van Gennep in his classic work" (Ó Cathasaigh 1977: 22). Campbell (2008) similarly invokes the more or less universal phenomenon of "so-called rites of passage … (ceremonials of birth, naming, puberty, marriage, burial, etc.)" (6, citing Van Gennep in n. 9) and claims (23) that "the standard path of the mythological adventure of the hero is a magnification of the formula represented in the rites of passage: *separation–initiation–return* … the nuclear unit of the monomyth".

Needless to say, universalist approaches to the basic pattern do not rule out IE or other genetic explanations for particular manifestations of it, especially if they contain correspondences in detail that are not easily accounted for in terms of universals. To begin with, the correlations between the three myths/legends documented above go considerably beyond those posited in any of the overall schemes but are closest to Von Hahn's, which was based exclusively upon IE sources. Alternants (i)/(ii) in (a) and (b) are easy enough to envisage as options coexisting within an essentially unitary prototype, whereas (d)(ii) seems likely to be an Irish modification of it motivated by the well-documented dynastic preoccupations of many Irish sagas (note 24 above, McCone 1990: 233–255 and 2020: 75–90). That would leave (d)(i) plus a possible optional extra (d)(i+).

Isolation of (f)(i) would likewise result from taking (f)(ii) as a peculiar Roman development as a result of grafting the 'expulsion/exposure and return' of a future king/hero upon an original legend of foundation by youthful emigrants under two leaders (cf. the 700 *kouroi* under Thrasymedes and Meriones in section 3.3), typically brothers as in comparable but evidently independent Gaulish and Lombard migration legends (section 5.2). As Alföldi (1974: 132–133) puts it, "the account of the young herdsmen, fugitives and criminals who flocked to Romulus and Remus and built up a flourishing city in a very short time is the mythical dressing up of the same form of organisation that brought about the sudden rise of the Brettii [aka the Bruttii discussed in section 2.6] in 356 BC on the basis of toughening and possession as werewolves". Mommsen's (1881) view of Remus as a relatively late addition designed to justify the Roman Republic's dual consulate has since been broadly accepted, but not without ongoing puzzlement and debate about his removal so soon after being invented as Romulus' twin (see Wiseman 1995: 16–17). Classen (1963) made the attractive suggestion that Remus' contentious premature death signified the aborting of a proto-republican dyarchy and imposition of monarchy, albeit as part of a scarcely credible proposal that it was always part of the foundation legend because this was created in its entirety

during the early republican period. These difficulties can be overcome by positing three successive main stages in the indigenous legend's early evolution: as a starting point, (1) a straightforward original account of Rome's foundation by the twins Romulus and Remus[25] at the head of a sizeable emigrant sodality (cf. the Gaulish and Lombard parallels); during the regal period, (2) incorporation of a typical 'expulsion/exposure and return' pattern[26] more or less concurrently with Remus' early death (but probably not yet as a result of fraternal strife) to make way for a monarchy under Romulus; in the early Republic, (3) introduction of fraternal strife, a dispute about auspices involving chicanery on Romulus' part (Dion. Hal. i, 86; Plut. *Rom.* 9, 5), and Remus' violent death in a virtual civil war for the reason suggested by Classen.

Elimination of (d)(ii) and (f)(ii) leaves a rather specific underlying prototype with claims to PIE antiquity, but there remains the issue of the 'Italo-Celtic' she-wolf versus the Persian bitch. De Vries (1961: 293) points out "that not only heroes but also full gods fit into the scheme. We have already been able to insert Krishna in India, Zeus, Apollo and Dionysius in Greece … into the examples in our lists". In Apollodorus' account (i, 5–7) of the birth and early career of the king of the Greek gods, Cronus swallowed each baby born to his wife Rhea in order to thwart his foretold deposition by his own child [= (a)(ii)]. She, however, gave him a stone instead of the sixth [= (d)(i+)] and Zeus was born in the Cretan cave of Dicte [= (b)(ii)], nourished by a she-goat's milk and hidden from his father by weapon-clashing Curetes [= (c)(i)↔(d)(i)]. Subsequently, the adult Zeus rescued his brothers and sisters, led them in a successful war against Cronus and the other Titans, and took over the kingship of the gods [= (f)(i)]. Only (e) is missing here. There may be no suckling she-wolf/bitch or nurturing herdsmen as such, but the former has been replaced as wet-nurse by an animal typically tended by herdsmen and the latter by a 'wolfish' band of Curetes (see section 2.3) as nurturers. In other words, there has been a straightforward transposition of human and animal roles. Successive phases with animal and human helpers have also been made simultaneous.[27]

25 See Wiseman (1995: 5–6 and 170–171 nn. 23–30) on clear traces of an older tradition that Romulus and Remus founded and, for a short time at least, ruled Rome together.

26 For which clear 5th-century BC iconographic evidence is provided by the images of a lioness or the like suckling a child on a funerary stele from Felsina in the Po Valley and a cista from Praeneste in Latium (Wiseman 1995: 65 and 66 figs. 6 and 7).

27 Alternatively, the animal and human could be combined in a single nurturer. Pelias deprived his brother Aeson of the kingship and sought his son Jason's death. After being rescued by a ruse and brought up in the wilderness by a man-cum-horse, the centaur

In the Old Norse *Vǫlsungasaga* (5), King Vǫlsung was murdered by his daughter Signý's husband, King Siggeir, and his ten sons were captured, bound to a beam and exposed in the wild wood. The only survivor of a she-wolf's nightly attacks was Sigmund, who managed to kill it with his sister Signý's help. He then (6–7) retired to an underground lair, where he was tended by his sister, who bore him a son called Sinfjǫtli. After donning wolfskins taken from two sleeping kings' sons, Sigmund and Sinfjǫtli roved as wolves for a time before Sigmund killed his father's murderer with his son's help, returned home and became king (8). Having killed the wolf, Sigmund ultimately becomes a 'wolf' for a time, rather as the Irish hero Cú Chulainn 'Culann's Hound' is so named on account of taking over the role and identity of Culann's great guard dog for a spell after slaying it.

The unnaturally benign behaviour of a wild she-wolf towards a human child in the ancient Roman and early Irish versions contrasts with the more or less natural performance of a similar sustaining role by domesticated animals, a bitch and a she-goat respectively, in the ancient Persian and Greek ones. It seems a good deal more likely that two different and more obviously suitable domestic animals should have been substituted for a wild wolf than vice versa. In the much less closely related Germanic version, the she-wolf also plays a key role in the hero's eventual progress to kingship, but this time by acting with natural malignity and devouring his nine brothers to leave him as the sole survivor after managing to kill her. Since the only plausible point of departure for these variants is a nurturing she-wolf, (c)(i) may confidently be ascribed to the prototype to the exclusion of (c)(ii). If a wild sodality was substituted for a she-wolf in the Zeus myth, it follows that the she-goat there had replaced herdsmen, thereby corroborating (d)(i) in the prototype, which has now been reconstructed in sufficient detail to clinch its PIE provenance.

In the PIE construct posited, a threatened/threatening child of royal birth is expelled from society to the wilds, where he is first reared by a she-wolf and then brought up as their own, in effect fostered, by a lowly herdsman and his wife until (after his true origin has been revealed as a result of a quarrel) returning home and deposing his persecutor. The understandable question "but why a normally vicious wolf?" was answered by simply substituting a domesticated canine wet-

Chiron, Jason returned home at the age of twenty (Pindar, *Pythian* iv, 101–119, and *Nemean* iii, 53–54). He was sent off again on a quest for the golden fleece (Apollodorus i, 107–109), and his second homecoming was followed by the gruesome murder of Pelias (Apollodorus i, 143–144).

nurse in Persia, but in Greece the wolf's ideological relationship with sodalities (section 2.1) led to a more far-reaching rationalisation by inversion to a milk-providing goat and a protecting band of armed Curetes. Obvious social correlates for nurture by a she-wolf and upbringing by herdsmen in the PIE myth are provided by evidence for a PIE practice of sending a young male away, firstly from the parental to another home for fosterage and then from regular human society to live in the wilds as a 'wolf' in a sodality (sections 1.1 and 2.1), until he met the conditions for readmission to his kindred and people as a man in his own right (section 3.4). This correlation in turn corroborates both the mythical and the social reconstructions.

That said, taking the myth as a straightforward representation of real life would entail the absurdity of actual admission to the 'wolf' phase as an unweaned baby and the subsequent fosterage of children of high status with lowly herdsmen. Rather, this is a typical enough case of the 'dialectic' refraction of social norms through a lens of what might be termed 'mytho-logic'. The outcome is amenable to analysis in terms of an already mentioned (section 2.7) structuralist pattern of binary opposites such as nature (–) and culture (+) plus a mediating third term (0) "which is neither '+' nor '–' but both at once" (Leach 1982: 8–9), not unlike the amber signal between red and green on a traffic light (Leach 1974: 21–25). The real-life sequence inferred from the available evidence was: infancy in the paternal home (+), fosterage with the mother's kin (0), membership of a 'wolfish' sodality in the wilds (–) and return home as an adult (+). However, a tendency in narrative to present both defining polar opposites before the mediating third term (McCone 2020: 106 and 112) generates the following sequence: high birth at home (+), expulsion to the wilds and nurture by a she-wolf (–), fosterage by lowly herdsmen tending animals on the margins of human society (0) and a return home as a young adult along with recovery of high status (+). The culture/nature (+/–) dichotomy is obviously relevant: birth within society (+), nurture by an animal in the wild (–), fosterage on the margin (0), return to society (+). So too is high (+) versus no (–) and intermediate low (0) status: royal birth (+), animal/sub-human wet-nurse (–), lowly human fosterage (0), attainment of kingship (+). The location of his expulsion from human society and exposure to the wilds at the very beginning of the hero's career also serves to establish his extraordinary 'liminal' nature as a figure destined to cross, re-cross and straddle diverse boundaries.[28] Once these 'mytho-logical' distortions have been taken into account, the

28 See section 3.1 on Van Gennep's use of the term *liminal* for (rites of) transition by crossing a threshold (Latin *limen*) from one place, phase or state to another. Cf. McCone

reconstructed PIE myth may be plausibly linked to a social system featuring basic stratification (McCone 2020: 116–125), fosterage (Bremmer 1976) and sodalities (section 2).

5 Coevals, 'sacred spring' and age-sets

5.1 Sodalities of coevals

In line with Radcliffe-Brown's first criterion in section 1.3, references to groups comprising males of the same age in sources from a range of early Indo-European cultures would be an obvious first step in making a case for age-sets as a PIE social institution. A suitable starting point is provided by the passage below from an incompletely preserved Old Hittite text that seems to be concerned with the foundation and fate of the city of Zalpa:

> The queen of Kanis bore 30 sons in 1 year. Thus she (said): "What an evil (*u̯alkuu̯a-* [Lehrman 1993]) I have given birth to!" She filled vessels with excrement, put her sons inside, let them (down in)to the river, and the river carried (them) to the sea, the land of Zalpuwa, but the gods took the sons up from the sea. They brought them up. As the years passed meanwhile, the q[uee]n also bore 30 daughters. She brought them up herself. The sons return to Nesa … When they went to Nesa … their mother did not recognise [th]em. She gave her daughters to her sons. The first sons did not recognise their sisters, but the last one [said]: "Let us [not] take our sisters! Do not sin! [ ] s[lept?] w[it]h them [(Otten 1973: 6–7)

Here too, the classic motif of expulsion/exposure and return plays a crucial role, the first transition being effected by the equally classic device of setting a vessel containing the child(ren) afloat on water as in the case of Romulus and Remus. For present purposes, however, the most salient features of the Hittite account

(1990: 188): "Being by definition abnormal, the hero does not fit neatly into ordinary human society and categories. As a superhuman but usually non- or only half-divine frequenter of the margin between men and god(s), society and outsiders, culture and nature, life and death etc., the hero can move freely between these worlds without belonging properly to any of them. Ambivalence and liminality are the hero's essential attributes".

are the literal brotherhood of thirty royal coevals and the plan to marry them simultaneously, on their return home, to thirty coeval girls, who turn out to be their younger sisters. Frustratingly, the tablet breaks off at this crucial point, but Romulus and his followers did acquire wives *en bloc* by seizing Sabine maidens at a festival. The Hittite 'trigesimuplets', with the likely exception of the dissenting youngest, may well also have married at the same time.

The Rigveda depicts the Maruts, the divine prototype of a *marya*-sodality, as another biologically unrealistic number of coeval youthful siblings. Macdonell (1917: 21) notes that "they form a troop (**gaṇá**, **śárdhas**) … Their number is thrice sixty or thrice seven. They are the sons of Rudra (ii, 33) and of Pṛśni … They are brothers equal in age … having the same birthplace and the same abode. The goddess Rodasī … seems to have been regarded as their bride". For instance, the Rigveda calls them *rudrásya máryāḥ* (i, 64, 2/2), *rudrásya sūnávaḥ* 'R.'s sons' (i, 85, 1/1), *pṛśni-mātaraḥ* 'having P. as mother' (i, 185, 2/4), *sá-vayasaḥ* 'co-eval' (i, 165, 1/1), *yúvānaḥ* 'young' (i, 165, 2/1), *ájeṣṭhāso* (*á*)*kaniṣṭhāsaḥ … bhrā́taraḥ* 'brothers without oldest (or) youngest' (v, 60, 5, 1/2).

In Rome's struggle against Lars Porsenna, Mucius Scaevola's co-conspirators were "three hundred leaders of the Roman youth (*iuventutis Romanae*)" according to Livy (ii, 12, 15), and "three hundred men of the same age (τὴν αὐτὴν ἔχοντες ἡλικίαν)" according to Dionysius of Halicarnassus (v, 29, 3). The early Irish saga *The Driving of Fróech's Cattle* (*Tain Bó Froích* §1, ed. Meid 1967) introduces its eponymous hero Fróech as follows: "There was a good household with him until the end of eight years without taking a wife to himself. Fifty kings' sons was the number of his household, all of the same age (*com-aís*) and of equal standing with him". Allowing for typical clerical reticence on the subject (cf. Cú Chulainn's final 'boyhood deed' in section 3.2), this was obviously a *fían*-sodality of as yet unmarried kings' sons (cf. the sons of Dond Désa and their aristocratic sodality in *The Destruction of Da Derga's Hostel* in the final paragraph of section 2.1). Corroboration is supplied by a number of members conforming to the canonical five, fifty or a further multiple thereof for an IE sodality (McCone 2020: 145–146), and by their spectacular display of hunting prowess as they approached the fort of Fróech's prospective royal in-laws (§5). In the account of *Bran's Voyage* (*Immram Brain* §32, ed. Meyer 1895), "Bran took to sea … [with] three nines of his co-fosterlings and his co-evals (*di-a chom-altaib ocus com-aísib*)".

Fróech and his band seem to have been about two years older than the average twenty or so when his thoughts turned to marriage. By contrast, the hero of the already mentioned Russian folk-poem (*bylina*) of Volx Vseslav'evič (Jakobson 1966: 301–368) and his followers were unusually young: "when Volx was twelve

years old, he started to pick a retinue (*družina*) for himself; he picked the retinue for three years, he picked a retinue of seven thousand; Volx himself is fifteen years old, and each man in his retinue is also fifteen" (ll. 52–57). After successfully leading his men on an expedition against a distant realm, "Volx enthroned himself as Tsar, wedding the Tsarina … and the valiants of the retinue all took unto them those maidens as wives and … became townsfolk" (ll. 195–201).

A similar expedition, this time an unsuccessful maritime one undertaken by young men of normal marriageable age, is envisaged in the last book of the *Odyssey*. Having espied the hundred or so recently slaughtered young suitors descending to Hades, Agamemnon's ghost declares (*Od.* xxiv, 104–113) that they seem "like all chosen and same-aged (ὁμήλικες, 107)" ones picked from the "best men" who had been drowned at sea or killed ashore on a raid for livestock or in a fight "for a city and women".

In these widely distributed mythical and legendary examples, its members' birth in the same year appears as a significant attribute of a youthful brotherhood or sodality. The evidence for communal initiations presented above (sections 3.1–3.2) suggests that, as a rule, this ideal was adhered to sufficiently closely in practice for all, or at least most, members of a typical sodality to be treated as coevals. Departure from such a group normally involved the acquisition of women and/or marriage. This too was represented as a joint affair in ancient Crete (section 3.4) as well as the legends of Romulus and Volx, was at least planned for the thirty coeval Hittite brothers, and was envisaged as a plausible aim of Penelope's hundred or so simultaneously slain and apparently coeval suitors.

5.2 Bands of young coeval emigrants and the 'sacred spring'

Birth in the same year was also a fundamental criterion for constituting a large band of youths for the purpose of emigration by a mechanism that was widely used in early Europe according to Dionysius:

> At first it was a sacred band of youths (ἱερά τις … νεότης) setting out … in search of a livelihood in fulfilment of an ancient custom that I understand was practised by many barbarians and Greeks. For when … their own resources were no longer sufficient for everybody … and [this] necessitated a reduction in population, they used to dedicate men's offspring of the year to some god, equip them with arms and send them forth from their land … Those who had set out … used to take as their home the land that had ei-

> ther received them in friendship or been conquered … Following this custom … [they] devoted the offspring of that year (ἐνιαυσίους γονάς) to some god and sent the lads away from home when they had reached manhood (ἀνδρωθέντας). (Dion. Hal. i, 16, 1–2)

This procedure looks very much like a *ver sacrum* 'sacred spring' as described by Festus in relation to historical events involving the Mamertini, Messana and the outbreak of the First Punic War.

> When a serious pestilence had befallen all Samnium, the chief (*princeps*) of that nation, Sthennus Mettius … explained that he had seen in repose Apollo instructing them to vow a sacred spring (*ver sacrum*) if they wished to be freed of that evil – i.e., they would offer up whatever should be born in the next year. Twenty years after they had been relieved by this action, a pestilence of the same kind attacked them. Having been consulted again, Apollo replied that their vow had not been completed because men had not been offered up: if they expelled these, it would be certain that they would be freed of that disaster. These, then, having been ordered to leave the fatherland … came to the aid of the Messenians … The latter, in order to repay this service invited them into their body (politic) and to a share of their lands. They also accepted a single name, being called Mamertini. (Festus 150 L)

Both sources depict a response to pestilence, food shortages or overpopulation by devoting a year's offspring to a god. For male babies that entailed being consecrated on reaching manhood some twenty years later and sent forth under arms and a god's protection to seek new homes and wives together. Coevality was clearly the very essence of this practice, which makes sense as a means of placating the gods at a time of pestilence but hardly as a remedy for the pressures of overpopulation. Rather than a twenty-year wait, these called for the direct reaction seen in Livy's and Paul the Deacon's descriptions of the Gaulish and much later Lombard incursions into Northern Italy. Similarities between the Gaulish emigration and a *ver sacrum* are underlined in Justin's summary of the lost *Philippic Histories* by Trogus Pompeius, the grandson of a Gaul.

> We have received this account of the passage of the Gauls into Italy … The Bituriges … supplied the Celtic land with a king. This was Ambigatus, excelling in virtue and fortune, both privately and publicly, insofar as Gaul was so productive in men and crops during his reign that the abundant multi-

> tude scarce seemed able to be governed. In old age he, wishing to relieve the kingdom of the burdensome multitude, revealed that he was going to send his sister's sons Bellovesus and Segovesus, both active young men (*iuvenes*), into the abodes that the gods should grant in auguries. They were to take off as large a number of men (*hominum*) as they wished so that no nation should be able to ward off their arrival. (Livy v, 34, 1–4)

> When the lands of their birth could no longer take them, the Gauls in their abundant multitude sent three hundred thousand men like a sacred spring (*ver sacrum*) to seek new abodes. (Justin xxiv, 4, 1–3)

> When the peoples had grown into such a multitude that they could no longer live together, it is said that they divided the whole host into three parts and sought to discover by lot which of these would have to leave the fatherland and seek out new abodes … [Those chosen were] under the command of two leaders, namely Ibor and Aio, who were brothers (*germani*) in the prime of youth (*iuvenili aetate floridi*) … Therefore, they set out from Scandinavia. (Paulus Diaconus, *Historia Langobardorum* i, 2–3)

In the Russian legend above, Volx began at the age of twelve to recruit a 7000-strong sodality of coevals and, when he and they had reached the age of fifteen, led them straight to foreign conquest and marriage. The basic 'Mamertine' type of *ver sacrum*, by contrast, earmarked young men born in a particular year for the risks and uncertainty of a joint quest for wives and new homes abroad when they reached the age of twenty, which was associated with growth of a beard as a sign of manhood and hence fitness to leave a sodality, marry and settle down (section 3.4). By then they would be on the verge of the fourth hebdomad (21–28 years) of their lives, when a man was in his physical prime according to Solon (27, 7–8; μέγ' ἄριστος ἰσχύν), thereby maximising their chances of meeting the imminent challenge successfully. Although the extant sources do not mention a specific age and their followers were apparently drawn from a broader age spectrum, the leaders and participants in the 'Gaulish' emigration were explicitly called *iuvenes* and two youths in their prime also led an emigration that ultimately brought the Lombards to North Italy about a millennium later. All three of these emigrations were prompted by a crisis, and the 'Mamertine' and 'Gaulish' variants at least were, in effect, emergency substitutes for a normal direct transition from sodality to marriage and setting up house among one's own people as in the ancient Cretan system described in sections 3.2 and 3.4. This entailed younger boys serving

and eating in the *andreia* 'men's clubhouses', older boys being sent out in *agelai* 'herds' devoted to hunting and fighting, joint marriage of those leaving an *agelē* and presumably joining or forming an *andreion*, and finally there was a council of 'elders' (*gerontes*) made up of former chief magistrates and others deemed worthy (Strabo x, 4, 23). Although not conclusive *per se*, joint marriage would be a fitting way to inaugurate an age-set with its own *andreion* as a place for meeting and communal eating. On the already discussed scene on the Gundestrup cauldron (section 3.3), footsoldiers belonging to a sodality unmistakably labelled as such by a wolf are being jointly initiated as mounted knights of the tribe/kingdom. Whether followed by a shared marriage ceremony or a more protracted series of individual ones, any group transition of this type would be a viable basis for constituting an age-set.

5.3 *Homēlikiē* (literally 'same-age group') and *hēlikiai* 'age-sets' in Ancient Greece

The Ancient Greek adjectives *hēlix* and *homēlix* both basically mean 'coeval' and usually appear substantivised in the plural, while the collectives *hēlikiā* and *homēlikiē* derived from them likewise applied primarily to persons of the same age. The preferred Homeric term *homēlikiē* typically characterises younger men also liable to be called *hetairoi* or a *hetaireia*, Greek terms broadly corresponding to Latin *sodalis* and *sodalitas*: e.g., "and he gave (them) to Deipylus, the dear companion (*heta(i)ros*) whom he esteemed above all of his same-age group (Δηιπύλῳ, ἑτάρῳ φίλῳ, ὃν περὶ πάσης τῖεν ὁμηλικίης)" (*Iliad* v, 325–326). As they descended *en masse* to the underworld, Penelope's young suitors were deemed *homēlikes* (*Od.* xxiv, 107) by Agamemnon's ghost in the scene from the *Odyssey* mentioned above, and another passage (*Od.* iii, 363–364) refers to the twenty young *hetairoi* accompanying Telemachus on his voyage to Pylos as his *homēlikiē*, like the Irish *comaísi* 'coevals' voyaging with Bran above. However, *homēlikiē* can also apply higher up the scale which an age-set would be expected to ascend as newer ones were formed, as when Odysseus tells Mentor "you are (a member of) my same-age group (ὁμηλικίη δέ μοί ἐσσι)" (*Od.* xxii, 208–209) or it is said that the 'old man' (γέρων) Halitherses "alone surpassed his same-age group (ὁμηλικίην ἐκέκαστο)" in augury (*Od.* ii, 157–159).

A historical example is provided by Herodotus' (v, 71) account of how the Olympic victor Cylon attached to himself "a sodality of his coevals (ἑταιρηίη τῶν ἡλικιωτέων)" and seized the Acropolis in an unsuccessful attempt to become ty-

rant of Athens in the later 7th century BC. Justin (xx, 4, 14–16) records a similar failed conspiracy, not unlike Mucius Scaevola's already mentioned (section 5.1) effort, to take over the Greek city of Croton in southern Italy in Pythagoras' day, the later 6th century BC, by "three hundred of the youths (*ex iuvenibus*) when, bound by the law of fellowship/sodality (*iure sodalicii*) and a certain oath, they were leading a life separated from the other citizens". Livy (xxi, 31, 6–70) records the deposing of a king of the Allobroges in southern Gaul by his younger brother with the support of a band of youths (*coetu iuniorum*), although the elder brother was restored in 218 BC by Hannibal after the Allobroges' senate (*senatus*) and leaders (*principes*) had invited him to arbitrate. There are obvious parallels between this historical event and the legend of Numitor's recovery of the throne of Alba from his brother Amulius with the support of his grandsons, Romulus and Remus, and their band of *iuvenes*.

A classic age-set cycle of *hēlikiai* 'age-sets' (aka 'age-classes/-groups') was still operational in Athens in the fourth-century on the good evidence of the Aristotelian *Athēnaiōn Politeia*. An already noted (section 3.2) reference there to two years spent by ephebes on patrol after public presentation of a spear and shield matches a statement by Pollux (viii, 105–106) that enrolment as a full Athenian citizen took place after two years on patrol in the country as an ephebe over the age of sixteen. The obvious implication is that those youths who had just completed service in a quasi-sodality were admitted to citizenship at the age of eighteen (*Ath. Pol.* §42, 1) on an annual basis. The subsequent arrangement is described as follows:

> (4) The *diaitetai* are those in their sixtieth year. This is clear from the [names of the] archons and the eponymous heroes (ἐκ τῶν ἀρχόντων καὶ τῶν ἐπωνύμων): for there are ten eponymous heroes (ἐπώνυμοι) of the tribes (τῶν φυλῶν) and forty-two of the age-classes (τῶν ἡλικιῶν). The *epheboi* … used to be entered on whitened boards [bearing] the names … of the archon under whom they were entered and the eponymous hero (ἐπώνυμος) of the previous year's *diaitetai* … (5) The Forty take the last of the eponymous heroes and distribute the arbitrations among the men … (7) They use the eponymous heroes also for military campaigns and when they send out an age range (ἡλικίαν) they prescribe from which archon and hero to which [ones] the men must go out on the campaign. (*Ath. Pol.* §53, 4–7; ed. and trans. Rhodes 2017)

As Vidal-Naquet (1986: 86–87) explains,

> each of the forty-two ranks had its own eponymous hero, and these heroes … served not only to summon the conscription classes but also to designate the public arbitrators (*diaitētai*). This magistracy appeared in 403–402, and its members were recruited from among those Athenians who were sixty years old. At the end of their sixtieth year, they passed into the class of elders, and the cycle of the forty-two years was over for them. Their eponymous hero therefore became available to the ephebes entering their nineteenth year.

Enrolment as an Athenian citizen, then, entailed inclusion in a coeval group named after a specific legendary figure and destined to move year by year up a 42-point scale between the ages of 18 and 60, when its surviving members left the cycle and its eponym was transferred to the next batch of new citizens. Unlike the particular judicial duties enjoined upon those leaving the 42nd *hēlikiā*, the military role of the *hēlikiai* does not look like a recent development: not only does the sequence of forty-two eponymous heroes point to the antiquity of a system still bearing the recognisable imprint of age-sets but a similar method of military call-up seems to have operated at Sparta, where "the ephors announce in advance the years (τὰ ἔτη) up to which one has to go on a campaign (στρατεύεσθαι), firstly to both cavalry and hoplites and then also to the artisans" (Xenophon *Resp. Lac.* 11, 2).

5.4 Criteria for constituting an age-set

In ancient Athens, the annual constitution of an age-set clearly coincided with admission as a full member of society after a period spent away patrolling the countryside. Since this normally entailed enrolment of those qualified by birth and age as citizens, the first condition was met from the outset and it was only a matter of time until the second was fulfilled. The evidence presented earlier (section 3.4) indicates that appropriate ancestry and attainment of a minimum age were almost inevitable as criteria for progress from adolescent sodality to adult society. Early Irish law tracts not only specify a minimum age of twenty but also detail the amount of livestock and other possessions deemed necessary for the occupancy of a given social grade as a married man (section 3.4). Since a property qualification of some sort would be a logical adjunct of transition from vagrancy to setting up one's own household, it may well have been present from PIE times. Early Irish law recognised inheritance as the regular means to this end, and Falk argues that options for acquiring the wherewithal to become a head

of household became increasingly limited as Indian society evolved during the interval between the Rig- and the Yajur-Veda:

> In the period of the RV youths were organised in bands, in which they were familiarised with the literary inheritance of their forebears as well as with the use of weapons … After the end of the apprenticeship an individual youth had four options. Firstly, the young man could marry and in due course take over the headship of the household from his father. He became an Āhitāgni … and thereby stood at the head of an extended family. This ideal was generally only attainable by the firstborn (*jeṣṭha*). All those born subsequently had a choice between, secondly, living as dependents in their brother's house or, thirdly, organising themselves into a band with others who were likewise disadvantaged with a view to acquiring by various means the wherewithal for an independent settlement. Failure to achieve this left, fourthly, only death or perpetual wandering as options … After the settlement of North India had reached a certain density, the raids of those left short must have become a great nuisance. Only the end result can be seen: larger political structures capable of protecting themselves against the bands and, above all, the [caste- or] *varṇa*-system, in which rule no longer depends upon the order of birth but upon membership of a social class. Needless to say, the privileges of the firstborn are retained within that class. The YV appears as a generally successful effort to adapt the ritual effect of the bands to the fire cult of the Āhitāgnis and transform it into a means of legitimating rule over a settled, civilised population. (Falk 1986: 13–14)

Even where primogeniture did not apply and each of a deceased man's sons could claim a share in his inheritance,[29] as inferred for PIE from various attested IE systems (section 1.2 and n. 2 above), a problem would still be posed by an inheritance that did not suffice for two or more heirs to maintain their father's position. In early medieval Ireland this seems to have been dealt with by the heirs either accepting a lower status or agreeing to award the whole inheritance to one claimant only by casting lots, competing in a game or even fighting to the death (McCone 1990: 207–208). The last three options would inevitably consign at least one excluded heir to death or prolonged membership of a sodality (cf. the Old Irish charm in section 2.1). Although similar expedients may also have been available

29 Note the PIE root *$*h_1erb^h$- from which words for both 'orphan' and 'heir' are derived in some IE languages (Benveniste 1969: 83–84, McCone 1999).

at earlier stages, there was presumably less need for them as long as sodalities remained in full vigour as an avenue for plundering sufficient stock and other valuables to top up or take the place of an inheritance. The accumulation of wealth figures in Diodorus' description of Iberian sodalities:

> There is a peculiar practice among the inhabitants of Iberia, especially the [IE] Lusitanians. Those in the prime of life who are the most short of resources but outstanding in physical strength and courage furnish themselves with might and arms and gather together in mountainous fastnesses. Having constituted units of note, they overrun Iberia and gather riches by plundering. They continue to do this with complete arrogance, employing light arms and being utterly mobile, swift and difficult for others to catch. Generally regarding the trackless and rough places in the mountains as their homelands, they take refuge in these because they are hard for large heavy armies to traverse. (Diodorus v, 34)

Transition from youth in a vagrant sodality to full adult status in the society of one's birth would seem to have depended, from the PIE period onwards, upon acquisition of the wealth necessary to maintain that status by inheritance, plunder, or a combination of both. If so, and even if the bulk of a sodality's members did normally manage to leave it together as claimed by Strabo for ancient Crete or depicted on a panel of the Gundestrup cauldron, the transition of indigent individuals from that phase might be delayed for some time or even permanently, as in the case of some Irish *oénchiniud*s or Germanic Chatti (section 2.6). One possible remedy (section 5.2) was emigration leading, if successful, to settlement abroad by dint of conquest or as a reward for military service. While emigration or death before departure from a sodality would hardly affect the system, a problem would be posed by stragglers who only managed to return home and become married householders some time after the majority of their peers. One possibility would be to attach them to the younger set admitted to adult society in the year when they too finally made it, but that would breach the 'distinct mean age' rule for an age-set formulated by Stewart (section 1.3). A better solution is suggested by the rather uniform age for the constitution of a sodality which is indicated by the evidence presented above for the joint initiation of youths into them and ascription of the same age to their members in myth or legend at least: the late incorporation of any straggler into the age-set formed some time before by most of his coevals upon leaving the sodality into which he and they had once been initiated.

6 Men's messes, Sabine wives and Rome's *curiae*, including the *curia* 'senate house'

> The sources tell us that the population of early Rome was divided into three tribes, called Tities, Ramnes and Luceres, which were themselves divided into thirty smaller units called curiae, ten to each tribe … But, unlike the tribes, the curiae retained certain residual functions in the public life of the Roman Republic. They formed the constituent units of an assembly, the *comitia curiata*, which met to pass the law conferring *imperium* (the right of command) on the senior magistrates (the *lex curiata de imperio*), and for other formal purposes … The curiae also played a part in the religious life of the state, in particular the Fornicalia … The last day of the Fornicalia, the 17 February … was popularly known as the 'feast of fools', because all the curiae met together on that day, and those who did not know which curia they belonged to were able to take part (Ovid, *Fasti* 2.531–2) … The word curia is also used to signify a building where meetings took place. The Curia Hostilia, for instance, was the earliest senate house … There is some evidence, moreover, that each of the thirty curiae had its own meeting hall, and was associated with a particular locality in the city … The names of the curiae, of which eight are known …: some appear to be associated with particular places (Veliensis, Foriensis), others to be clan names (cf. Dion. Hal. 2.47.3; Plutarch, *Rom*. 20.3), though if so the clans in question are very obscure (Titia, Faucia, Velitia, Acculeia), while others are frankly mysterious (Tifata, Rapta). (Cornell 1995: 114–117)

The gist of these remarks is that, notwithstanding residual ritual, social and legal functions, the *curiae* had become sufficiently irrelevant in the later Roman Republic for many citizens not to know which *curia* they belonged to. Tradition had it that Romulus created three tribes with ten *curiae* in each to give thirty overall, each apparently with a meeting place also called a *curia*, which was also the name for Rome's oldest senate house.

Cretan *andreia* (ἀνδρεῖα) or 'men's clubhouses' have already been mentioned in relation to age-grades and age-sets. Spartan *sys-sitia* (συσ-σίτια) 'messes' were deemed sufficiently similar for Herodotus (i, 65, 4–5) to claim that they had been introduced by Lycurgus from Crete. Strabo (x, 4, 18) claims that 'Cretan' institutions at Sparta included *syssitia*, which were called *andreia* still in Crete and formerly also in Sparta, citing in evidence Alcman's late 7th-century verse "at feasts (φοίναις) and festivities (θιάσοισιν) it is proper to begin a paean among

the diners of *andreia* (ἀνδρείων παρὰ δαιτυμόνεσσι)". Contemporary testimony to the survival of *syssitia* in parts of Italy as late as the 4th century BC is provided by a statement in Aristotle's *Politics* (1329b5, 14–18) that Minos established Cretan *syssitia* but "those in Italy are far more ancient than these … Italus … first established the *syssitia*. Consequently, even now some of his descendants still make use of *syssitia*". The straightforward etymology of *cūria* as **co-viria* 'men's association' led Alföldi (1974: 67) to remark that "the house of the men's association, which every *curia* had, was likewise called *curia* and … assigned to the men's *syssitia*" and "these dining societies were characteristic of the whole of Italy".

That raises the question of whether they were originally age-sets formed by those leaving a sodality, marrying and becoming adult citizens in a given year. After stating (ii, 7) that Romulus divided the people (πληθύν) into three parts and each of these into a further ten, calling the larger units tribes (τρίβους, equated with Greek φυλή and τριττύς) and the smaller ones curiae (κουρίας, equated with Greek φράτρα 'phratry' and λόχος 'squadron'), Dionysius of Halicarnassus points out that each Roman *curia* had its own unique eponym:

> Some [Roman authors] write that the leaders (ἡγεμόνας) bestowed many other great benefits upon the [Sabine] women and even had the thirty *curiae* (φράτρας) named after the women (ἐπωνύμους τῶν γυναικῶν), since that had been the number of women on the embassy [for peace with the Sabines]. But Terentius Varro does not agree … saying that the names had been imposed upon the *curiae* (κουρίαις) earlier by Romulus in relation to the initial division of the people, some taken from leading men (ἀνδρῶν … ἡγεμόνων) and others from places (τόπων) (Dion. Hal. ii, 47; cf. Livy i, 13, 6–7)

According to Plutarch (*Romulus* 20, 3), "each tribe had ten *curiae* (φρατρίας), which some say are named after (ἐπωνύμους) those women, but this seems to be false, as many of them have their appellations from places/districts (χωρίων)". The characterisation of each *curia* by a distinctive eponym is a striking parallel with the cyclical Athenian age-sets termed *hēlikiai* (section 5.4), particularly if at least some of them were, as apparently maintained by most Roman authorities, the names of legendary Sabine maidens abducted and wed by Romulus and his men. Varro's objection, which Plutarch seems to have been inclined to accept, that some *curiae* were named from places is borne out by two of their eight known titles, namely Veliensis and Foriensis. Since Cornell admits that a link with *gentes* favoured by him is no real help with the other six attestations, these could presumably have been viewed as the names of Sabine wives by abduction, *Rapta*

being particularly suggestive in this regard. Whether brides supposedly seized by Romulus' bachelor band supplied the eponyms of various *curiae* at an early stage or *curia* names that had become obscure were ascribed to abducted Sabine women somewhat later, the fact remains that the *curiae* were thereby connected with the wives seized by Rome's recently settled but previously vagrant bachelor founders according to the standard legend of the city's origins. An erstwhile function of the Roman *curiae* similar to that of the *hēlikiai* as the basic constituents of an Athenian military call-up is indicated by the second Greek equivalent of the Latin term proposed by Dionysius above: *lokhos*, a military unit roughly translatable as 'squadron'.

The ancient sources' unanimity about Romulus' division of Rome's first citizens into thirty *curiae*, ten per tribe, has generally led to modern acceptance that the *curiae* did indeed number thirty and originated as subdivisions of three otherwise obscure tribes. However, Festus (42 L) indicates quite clearly that their actual number was thirty-five:

> *Curiae* … into which Romulus distributed the people, thirty in number, to which five were added afterwards, so that everyone might perform public rites (*sacra publica*) and observe festivals (*ferias*) in his own *curia*, and the names of the *Curiae* maidens (*Curiarum virginum*) are said to have been imposed upon these individual *curiae*, the maidens (*virgines*) whom the Romans once seized (*rapuerunt*) from the Sabines.

This entry resolves the discrepancy between the thirty 'Romulan' *curiae* of tradition and the thirty-five in existence by simply invoking the later creation of an extra five *curiae*. Nevertheless, in the absence of any indication of when this alleged innovation occurred, this explanation looks distinctly facile. Suspicion that it puts the cart before the horse is heightened by a broader numerological context: as a result of the fighting with Remus and his followers, "small was the number of those participating in the settlement/colony (ἀποικίας) with him [Romulus] that was left from the large one originally sent out, [namely] three thousand footsoldiers and three hundred knights (τρισχίλιοι πεζοὶ καὶ ἱππεῖς τριακόσιοι)" (Dion. Hal. ii, 2). The reason for this incredibly neat number was surely that it provided an aetiology of the size of a Roman legion, which was originally formed by 1,000 infantry and 100 cavalry from each of the three tribes according to Varro (*Ling. Lat.* v, 89). There was, then, a tradition that Rome's original citizen body was, in effect, a legion consisting of 3,000 *pedites* and 300 *equites* organised into 30 *curiae* and 3 *tribus*. The evidently artificial symmetry ($3 \times 10 \times 10 \times 10$) of this antiquar-

ian scheme could easily have been achieved by shaving five off the actual number of by then largely defunct *curiae* to give an original thirty, the corollary being that they were only later increased to thirty-five. Consequently, there is no good reason to suppose that the number of *curiae* was ever other than thirty-five in reality.

In that case, the *curiae* cannot have been subdivisions of three tribes. Their number would, however, make good sense if they originated as age-sets recruited annually from those leaving sodalities around the age of twenty. They would then have proceeded up a 35-point scale until the exemption of a *curia*'s surviving members from military service at the age of fifty-five or so freed its eponym and premises for recycling to the next annual intake of new citizens, as in the cycle of 42 Athenian *hēlikiai*. The fact that 35 and 42 are successive multiples of seven may be significant in view of the arguably old or even PIE division of a man's life into a sequence of ten seven-year phases underlying Solon's already discussed poem (sections 3.4 and 5.1). Whereas significant transitions in a young male's development were seen to mark the ends of the first three of these, the boundaries between the next five or six of full manhood seem to have been a good deal less clear-cut until the final major transition to status as an elder around the age of 55. Solon characterises them as a man's physical prime (21–28 years; μέγ' ἄριστος ἰσχύν, 4th couplet), time for marriage and children (28–35), increased mental acuity (35–42), peak of intellect and eloquence (42–56; νοῦν καὶ γλῶσσαν … μέγ' ἄριστος, 7th couplet), continued ability but some weakening of faculties (56–70; ἔτι μὲν δύναται, μαλακώτερα δ(ἐ), 8th couplet), and finally the prospect of death after reaching the end (μέτρον) of the tenth hebdomad (9th and final couplet). Solon's watershed of 56 before decline sets in is virtually the same as a Roman's age at the end of the cycle of 35 *curiae*, if these are taken as annually constituted age-sets. This suggests that the number of Athenian *hēlikiai* was increased by a conventional further seven at some time between Solon's day (early 6th century) and the late 5th century BC by lowering the ages of entry into and departure from the cycle somewhat.

Osborne (2009: 30) argues from the high rates of mortality likely to have prevailed in archaic Greece that "the elders of the community were chosen by the lottery of survival" since "only some 5 per cent were over the age of 60" on average. That is when an Athenian left the final *hēlikiā* of the annually progressing cycle for a final undifferentiated phase as an elder terminated by death. This conforms to a further attested feature of age-sets (aka age-groups): "It is quite often felt that age-groups should have a certain minimum size, and the oldest in the system may drop below that size. The practice exists, therefore, of joining some of the oldest age-groups together to form a single, enlarged group" (Stewart 1977: 123). If a *cu-*

ria of Roman citizens who had reached the age of fifty-five was dissolved annually after completing a 35-year cycle and its remaining members incorporated into a single combined age-set of *senes* 'elders' charged with deliberative functions, it would be only natural for the place where this *senatus* met to be called a *curia* like the meeting places of the younger cyclical age-sets. In a republic especially, a council of 'elders' could come to consist mostly or entirely of ex-magistrates, as in the case of the Cretan *gerousia* (section 5.2) or the Roman senate.

Cornell (1995: 144; cf. 428 n. 74, and Bremmer 1987: 41–42) points out that:

> one of the most important features of the society of central Italy in the archaic period is the presence of … aristocratic warlords whose power rested on the support of armed personal dependants, who are variously styled 'clients' (*clientes*) or 'companions' (*sodales*) … Well-known examples include the Sabine leader Attus Clausus (Appius Claudius), who in 504 bc migrated to Rome with a private retinue of 5,000 armed clients; and Cn. Marcius Coriolanus, noted for his "large following of companions, and many clients banded together for warlike gain", who joined the Volscians and became their leader in a war against Rome … The so-called Lapis Satricanus, which can be dated with some confidence to around 500 bc, records a dedication to Mars by the companions (*sodales*) of a certain Poplios Valesios (i.e. Publius Valerius) … it provides contemporary evidence of a group who define themselves not as citizens of a state or members of an ethnic group, but as companions of an individual leader.

The subsequent disappearance of Roman sodalities, apart from ritualised relics such as the colleges of *Luperci* and *Salii*, was almost bound to lead to significant changes in the recruitment and functions of *curiae*, if they were originally age-sets formed on departure from a sodality. Unfortunately, the details are obscure.

7 Conclusion

There is a good deal of evidence from a range of peoples speaking IE languages for 'wolfish' sodalities of youths consigned to a period of hunting and raiding in the wilds between the ages of (give or take a year) fifteen and (at least) twenty, and a PIE institution along these basic lines may be posited with some confidence. Ideally, this phase of virtual 'limbo' was a transitional one between boyhood as a minor in the home of parents or foster-parents and manhood as the married

head of one's own household in the community of one's birth. In practice, however, progress to the latter status around the age of twenty could be impeded, either temporarily or indefinitely, by a lack of the means for setting up a household. One obvious response to a long-term obstacle was emigration and, in the event of a serious general reduction in prospects at home by overpopulation or drought or disease, a large number of suitably trained and hardened youths aged twenty or so was liable to be dedicated in a 'sacred spring' and sent forth in the hope of winning property and wives elsewhere. Sodalities, then, seem to have played a key role not only in PIE and early IE social organisation but also in (P)IE migrations at various stages.

Life in a typical Indo-European band of wandering bachelors hunting and raiding in the wilds like a pack of wolves must have entailed a high degree of interdependence conducive to 'male bonding' and efficient cooperation. Once that phase had been left behind and the next one as married householders embarked upon, a desire to continue the *esprit de corps* and ties formed in a sodality would be understandable in view of their potential military and social usefulness. An obvious way of implementing this was to incorporate those comrades of about the same age leaving a sodality in a given year into a lifelong association, thereby fulfilling Radcliffe-Brown's two basic criteria for an age-set as cited in section 1.3. If so, one might expect recognition of what would, in effect, be the 'graduating class' of a particular year to be marked by a ritual such as the joint marriage recorded in ancient Crete and/or the group baptism depicted on the Gundestrup cauldron.

The attestation of coeval groups and joint marriage in the myths, legends, rituals and societies of a number of early Indo-European peoples combines with the direct attestation of age-sets in ancient Athens and their inference in ancient Rome to make it likely that a system of age-sets played a role in Proto-Indo-European social organisation. The evidence indicates that, as might be expected, a new age-set was constituted by those aged twenty or so who graduated together from their sodality in the same year, although the basic qualification for joining it had been established by admission to that sodality some five years earlier. In the probable event that sodalities were exclusively or at least primarily the preserve of upper-class youths in PIE, as was the case in various early IE societies, age-sets ultimately based upon them will likewise have been primarily aristocratic associations convened at intervals for ritual and social purposes. The result was a set of relationships that was essentially independent of, and supplementary to, those established by kinship or marriage, and was calculated to enhance the power of an age-set's members by preserving and promoting among them a shared identity

conducive to increased military impact and social influence. The potential for mutual support and advantageous networking will have been still greater if the supplementary division of a man's career into seven-year stages really was old and led to larger groupings of seven age-sets within a specific range (e.g., memberships of 21–28 or 42–49 years) for certain ritual, social and/or military purposes.

Whatever the precise details, it seems that the period spent in a sodality not only prepared a young man for adult life but also provided the platform for his integration into a power-structure centred upon age-sets or groups of approximately coeval married men, which remained in existence until surviving members moved on to the final age-grade and a new sphere of influence and activity as elders.

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This book is situated at the intersection of diverse but complementary approaches to the investigation of prehistoric culture and society: combining perspectives from linguistics, archaeology, anthropology, and history of religion, it seeks to explore the dynamics of power, gender, and mobility – three concepts that are essential for a profound understanding of the historically attested Indo-European–speaking societies and of the prehistoric society reflected by Proto-Indo-European.

The book offers a comprehensive analysis of topics ranging from gender roles and female onomastics to power structures and the role of poets as social brokers, from Indo-European legal language and initiation rites to matrimonial practices and age-based social hierarchies. It provides fresh interpretations and new approaches to known material as well as novel explorations and unprecedented analyses of new data.

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